G20 Report on Actions against Marine Plastic Litter

Fourth Information Sharing based on the G20 Implementation Framework

2022

Disclaimer: The report does not necessarily provide exhaustive documentation of all activities by G20 members, other countries and regions sharing the Osaka Blue Ocean Vision and key international organisations; rather it documents their on-going efforts and best practices at the time when compilation work was conducted between June 2022 and August 2022.

The information included in this report is based on voluntary submissions from the G20 members, other countries and regions sharing the Osaka Blue Ocean Vision, and international organisations / NGOs. For details of actions, please refer to the direct links in each description.

1st edition (As of 26 August 2022)

Acknowledgements

This report is the fourth compilation report on policies and measures taken / to be taken by the countries, regions and organisations. This report was produced under the leadership of the Ministry of Environment and Forestry, Republic of Indonesia. The Ministry of the Environment, Japan, and the Institute for Global Environmental Strategies (IGES) have provided support for the development of the G20 Report on Actions against Marine Plastic Litter since June 2019.
Previous volumes have been successfully published over the last three years, with the first report published in October 2019, the second in November 2020, and the third in November 2021. This 2022 report aims to identify the current policy status on marine plastic litter taken by the G20 countries and regions sharing the OBOV, as well as international organisations and NGOs. For this year's report, 18 non-G20 countries and eight organisations contributed to the report by providing their inputs on a voluntary basis. From the G20 members, 16 countries continuously submitted their actions for this year. Since this report has been published annually, the newly reported description this year is underlined as you see in the main chapters.

The original information on actions described in this document has been provided by the following members and countries:

【Countries】
Australia
Brazil
Canada
Chile
Colombia
Costa Rica
Fiji
France
Germany
Indonesia
Italy
Japan
Kingdom of Saudi Arabia
Marshall Islands
Mexico
Myanmar
Nepal
Netherlands
Norway
People's Republic of China (China)
Peru
Republic of Korea
Samoa
Senegal
Singapore
Spain
Sri Lanka
Sultanate of Oman (Oman)
Thailand
Türkiye
United Arab Emirates (UAE)
United Kingdom (UK)
United States of America (US)
European Union (EU)

【International organisations / NGOs】
Asian Development Bank (ADB)
Economic Research Institute for ASEAN and East Asia (ERIA)
Ellen MacArthur Foundation (EMF)
International Atomic Energy Agency (IAEA)
United Nations Development Programme (UNDP)
United Nations Environment Programme (UNEP)
United Nations Industrial Development Organization (UNIDO)
World Economic Forum Global Plastic Action Partnership (WEF GPAP)

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With Indonesia and Japan holding the G20 Presidency in 2022 and 2019, we would like to thank the participating countries, regions and organisations for their prompt submission and cooperation. We hope that this report will be helpful to promote policies and measures among the contributing countries and organisations by peer learning from best practices, as well as for the use of the wider international community.

Acronyms and Abbreviations

3Rs	Reduce, Reuse, Recycle
ADB	Asian Development Bank
APEC	Asia Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CE	Circular Economy
COBSEA	Coordinating Body on the Seas of East Asia
COVID-19	Coronavirus disease 2019
CSR	Corporate Social Responsibility
DMC (of ADB)	Developing Member Country of Asian Development Bank
EC	European Commission
EPR	Extended Producer Responsibility
EPS	Expanded Polystyrene
ERIA	Economic Research Institute for ASEAN and East Asia
FAO	Food and Agriculture Organization of the United Nations
G20	Group of Twenty
G7	Group of Seven
GEF	Global Environment Facility
GPAP	Global Plastics Action Partnership
HELCOM	Baltic Marine Environment Protection Commission - Helsinki Commission
IAEA	International Atomic Energy Agency
IMO	International Maritime Organization
MARPOL	International Convention for the Prevention of Pollution from Ships
MPL	Marine Plastic Litter
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
PE	Polyethylene
PET	Polyethylene terephthalate
PO	Polyolefin

PS	Polystyrene
PVC	Polyvinyl chloride
R&D	Research and Development
REACH	European Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
SDGs	Sustainable Development Goals
SME	Small and Medium-sized Enterprises
SUP	Single-Use Plastics
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization

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1. Introduction

Plastics are the largest, most harmful and most persistent fraction of marine litter. According to the United Nations Environment Programme (UNEP), approximately 7 billion of the 9.2 billion tonnes of plastic produced from 1950-2017 became plastic waste, ending up in landfills or dumped. Particularly, the amount of plastic litter in the world's oceans has been rapidly growing year by year (Borrelle et al., 2020; Jambeck et al., 2015; Ryberg et al., 2019), accounting for at least 85 per cent of total marine waste (UNEP, 2021). To respond to this critical issue, measures have been intensively discussed at various international fora, such as UNEA (United Nations Environment Assembly), G20, and G7. As we have already seen in the G20 Marine Plastic Litter Reports, multilateral stakeholders have engaged in actions against marine plastics in different parts of the world. This momentum supported a historic resolution at the fifth session of the United Nations Environment Assembly (UNEA-5) in 2022, on reaching a commitment to develop an international legally binding instrument (hereinafter "the instrument") on plastic pollution, including in the marine environment, with the ambition of completing the work by the end of 2024.

Further and immediate actions are required to stop marine plastic pollution; however, we are simultaneously facing several challenges in accelerating the actions against marine plastic litter. For example, personal protective equipment has added significantly to current volumes of plastic waste due to the ongoing COVID-19. While there is a renewed realisation of the importance and value of plastic, this does not change the gravity of plastic pollution. We, the G20 members and countries/organisations, must continue to accelerate our MPL actions in parallel with our response to infectious diseases.

In light of the "G20 Action Plan on Marine Litter" agreed at the G20 Hamburg summit in July 2017, the "G20 Implementation Framework for Actions on Marine Plastic Litter" was established at the G20 Ministerial Meeting in June 2019 in Karuizawa. Maintaining this momentum, the "Osaka Blue Ocean Vision (OBOV)" aims to reduce additional pollution by MPL to zero by 2050 through a comprehensive life-cycle approach. OBOV was firstly shared by G20 leaders at the G20 Osaka Summit in 2019 and has now been widely shared at various international fora as a common global vision. To achieve this vision, the G20 Implementation Framework was also endorsed by the G20 Osaka Leaders' Declaration and has received additional support from multiple members. The number of countries and regions sharing the Osaka Blue Ocean Vision has risen to 87 as of August 2022. Under the G20 Implementation Framework, G20 members have been facilitating action implementation in line with the G20 Action Plan on Marine Litter based on respective national policies, approaches and circumstances.

With this as a background, the G20 reports on Actions against Marine Plastic Litter have been annually published since 2019, extending the reporting scope to countries and regions sharing the OBOV, as well as to institutions beyond the G20 community. Plenty of countries have contributed to this initiative over the four years: it started from 20 countries in 2019 and this year 34 countries and 8 institutions / NGOs contributed to this first edition in 2022. Furthermore, for efficient information-sharing, updating, and outreach to the wider international community, the reported information and recent relevant news are regularly updated at the G20 Marine Plastic Litter portal site (https://g20mpl.org/).

The fourth G20 report on Actions against Marine Plastic Litter was prepared in 2022, under the leadership of the Government of Indonesia, which holds the 2022 G20 Presidency, and with the support of the Government of Japan. The report will help to promote policies and measures through information and knowledge-sharing based on the G20 Implementation Framework, among and beyond the G20 member states. This report covers actions by the G20 members, and other countries and regions that share the Osaka Blue Ocean Vision, as well as relevant key international organisations.

We hope that this informative report will contribute to supporting the improvement and acceleration of the actions, particularly by encouraging actors to work in an internationally harmonised and coordinated manner. We also believe that this report will be of help in promoting a constructive discussion at the intergovernmental negotiating committee for the instrument on plastic pollution.

As a quick overview, the following table summarises each country's implementation status based on the submitted templates.

Country name	AU	BR	CA	CL	CN	CO	CR	DE	ES	FJ	FR	ID	IT	JP	KR	LK	MH	MM	MX	NL	NO	NP	PE	SA	SG	SN	TR	TH	UAE	UK	US	WS	EU
Policy Framework																																	
National Action Plan	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•	•	•	•	•	•
Legislation on MPL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MPL-specific indicators	•	•	•	•			•	•	•	•	•	•	•	•	•	•				•	•			•			•	•	•		•			•
Measures																																	
EPR	•	•	•	•	•	•	•	•	•		•	•		•	•	•				•	•		•	•	•	•	•	•	•	•		•	•
Reduce single-use plastic	•		•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•
Restrict microplastics	•		•		•			•	•		•				•					•	•							•		•	•		•
Waste management recycling improvement	•	•	•	•	•	•	•	•		•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Clean-up activities for rivers and coasts	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•
Action on fishing gear	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•		•	•	•	•				•	•	•	•	•	•	•	•	•
Trap/filter on drainage/river	•	•	•							•	•	•			•	•	•	•		•	•				•	•	•	•		•	•		•
Promote innovative solutions	•	•	•	•	•		•	•		•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Boost multi-stakeholder involvement	•	•	•	•	•	•	•		•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
R&D and Monitoring	•	•	•	•	•		•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•
International cooperation	•	•	•	•	•	•		•	•	•	•	•		•	•	•		•	•	•	•		•	•	•	•	•	•	•	•	•	•	•
International cooperation (Southeast Asia)	•		•		•			•		•	•	•		•	•	•		•			•				•			•		•	•	•	•
International cooperation (Africa)	•		•					•			•			•							•				•					•	•	•	•
International cooperation (Latin America)	•		•	•			•	•			•								•		•				•					•	•	•	•
Prevention and reduction of plastic waste generation																																	
SUP products surcharge	•	•	•	•	•		•		•	•	•	•	•	•	•	•	•		•	•	•		•				•	•	•	•	•		•
Sustainable / circular product design	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•		•	•	•		•		•	•		•	•	•	•	•	•
Regulation on microplastics	•		•		•		•		•		•		•		•					•	•		•					•		•	•		•
Environmentally sound waste management																																	
Proper waste management system	•	•	•	•	•				•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•		•	•	•
Prevention of plastic leakage	•		•	•	•				•	•	•	•	•	•	•	•	•		•	•	•		•		•	•	•	•		•	•	•	•
Cleanup of marine plastic litter																																	
Collection of scattered waste on beach	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•		•	•		•	•	•	•

Country name	AU	BR	CA	CL	CN	CO	CR	DE	ES	FJ	FR	ID	IT	JP	KR	LK	MH	MM	MX	NL	NO	NP	PE	SA	SG	SN	TR	TH	UAE	UK	US	WS	EU
Removal of plastic litter from the ocean	•	•	•	•	•	•		•	•	•	•		•	•	•	•					•			•	•		•	•		•	•		•
Promotion of innovative solutions																																	
Policy actions for encouraging plastic alternatives	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•				•	•	•		•	•	•	•		•		•	•
Public-private partnerships			•		•		•		•	•	•	•	•	•	•	•	•				•	•	•		•	•		•		•	•	•	•
Education and awareness raising																																	
Education system for encouraging public awareness	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•
Awareness raising campaigns (national)	•	•	•	•	•		•	•	•	•	•	•	•	•	•		•			•	•	•	•	•	•	•	•	•		•	•	•
Awareness raising campaigns (local)	•	•	•		•		•	•		•	•	•		•		•	•	•			•	•					•	•				•	
Awareness raising campaigns (international)	•	•	•		•			•		•	•			•	•	•			•		•	•						•		•	•	•	•
Monitoring & Scientific research on marine plastic litter																																	
Research on plastic flows and ocean surface microplastics	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•		•		•	•		•	•	•		•	•		•	•		•
Engagement in international/regional level projects	•		•				•				•	•	•	•	•		•		•		•		•		•		•	•		•	•		•
Challenges																																	
Recycling system improvement		•	•	•			•	•			•	•				•	•	•	•		•		•	•		•		•	•	•	•	•	
Proper waste management system		•					•					•				•	•	•	•			•	•			•		•		•		•	
Data collection related to waste in general		•	•					•				•	•			•	•		•		•	•	•					•		•		•	
Data collection related to marine plastic litter		•	•	•	•		•	•		•		•	•	•		•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	
Lack of awareness		•					•	•			•	•				•	•	•					•	•			•	•	•	•	•	•	
Lack of financial incentives for waste treatment		•		•			•				•	•				•	•	•	•			•	•	•		•				•		•	
Lack of financial incentives for technology development		•		•			•				•	•				•	•	•	•			•	•	•		•				•		•	
Project delays due to COVID-19	•		•				•	•	•	•			•	•		•	•				•		•				•	•		•		•	

*This is based on a checklist responded by 33 members (out of 34). The country code refers to the UN/LOCODE Code List 2022 (https://unece.org/trade/cefact/unlocode-code-list-country-and-territory)

2. Policy Framework for MPL

A total of 34 members, 33 countries and EU, have contributed to this year's reporting. For the purposes of this report, we categorize EU as a political unit and capture its responses with other countries. Out of 34, 33 members responded to the checklist asking implementation status. Thus, the following infographics were developed based on the checklist responses by 33 members in total. Responses are presented in the following sub-categories: policy framework; measures; and challenges.

Out of 33 countries, 31 countries have national action plans/strategies on marine plastic litter, and 33 countries have legislations on marine plastic litter. 21 countries have MPL-specific indicators to monitor and evaluate progress towards reducing MPL. Based on the responses, action to abate MPL is entrenched in the policy process, with countries starting to take measures.

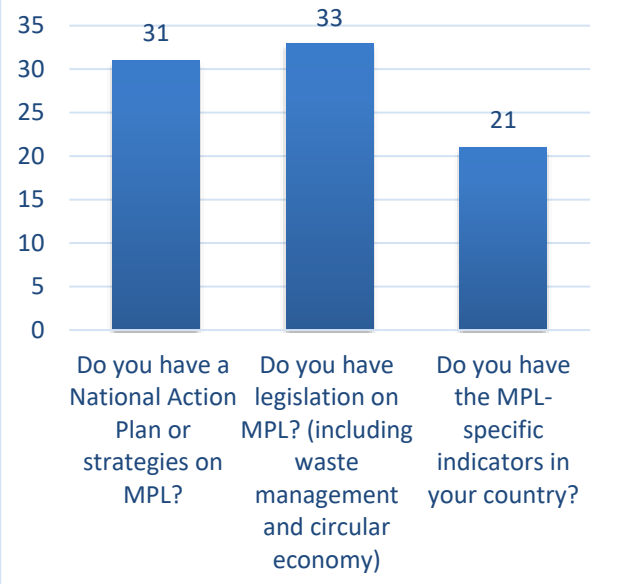

Figure 1: Countries - Policy Framework for MPL*

*Number of countries responded YES among 33 responses

2.1. National Action Plan (Countries) / Action Plan (International organisations and NGOs)

Countries

Australia

- 2018 National Waste Policy

  The 2018 National Waste Policy, agreed by all Australian governments, sets the agenda for waste to 2030. The Policy is underpinned by circular economy principles and recognises that by applying the principles of a circular economy, we can support better and repeated use of our resources. A copy of the Policy is available at

  http://www.environment.gov.au/protection/waste-resource-recovery/national-waste-policy

- 2019 National Waste Policy Action Plan

  The 2019 National Waste Policy Action Plan drives implementation of the National Waste Policy, including by setting seven National Waste Targets to reduce waste, increase recycling and importantly develop markets for recycled materials. A copy of the Action Plan is available at

  https://www.environment.gov.au/protection/waste/publications/national-waste-policy-action-plan

- 2021 National Plastics Plan

  The National Plastics Plan takes a whole-of-lifecycle approach to the plastic challenge, including product design, increasing Australia's recycling capacity, stimulating demand for recycled content, and preventing plastics from leaking into the environment. The plan addresses:

  - Phasing out problematic and unnecessary single-use plastic packaging and products
  - The need for Australia to take responsibility for our plastic waste
  - Supporting consumer action on plastics
  - Plastic-free oceans and waterways

- Research and innovation, to inform good decisions and unlock new opportunities.

A copy of the National Plastics Plan is available at

https://www.environment.gov.au/protection/waste/plastics-and-packaging/national-plastics-plan

These material streams were identified following two years of consultation by APCO with industry and government on problematic and unnecessary single-use plastic packaging and products. Government is working with industry on steps to phase out these products.

On 15 April 2021 Australia's Environment Ministers agreed eight problematic and unnecessary single-use plastic product types for phase out by 2025 (or sooner in some cases) under the National Waste Policy Action Plan. This decision will provide greater clarity to industry. The agreed products were: lightweight plastic bags; plastic products misleadingly termed as 'degradable'; plastic straws; plastic utensils and stirrers; expanded polystyrene (EPS) consumer food containers (e.g. cups and clamshells); EPS consumer goods packaging (loose fill and moulded); and microbeads in personal health care products

Brazil

- National Plan to Combat Marine Litter

Overall, this national initiative aims to reduce as much as possible the impacts of marine litter (including plastic) on coastal and marine ecosystems and to improve life quality of Brazilian citizens.

The main goals of the Action Plan are:

- to reduce marine litter impact in terms of quantity arising from terrestrial sources;
- to reduce impact of marine litter in terms of quantity of debris from marine sources, including solid waste, lost cargo, abandoned, lost or discarded fishing artifacts, and abandoned vessels;
- to reduce the amount and the impacts of accumulated solid waste on the coast and in coastal and oceanic waters;
- to boost research, development of technologies and methodologies to combat marine litter; and
- to promote environmental education activities and improve society's engagement by providing information regarding the impacts of marine litter and the need for better solid waste management improvement.

The 2022 Action Plan prioritizes the implementation of some objectives and actions foreseen in the National Plan to Combat Marine Litter, encompassing:

- Solid waste management ("tackling the root cause");
- Cleaning up beaches, rivers and mangroves ("Restoring the environment and life quality"); and
- Results management ("Gathering information and continued improvement").

Canada

- Canada-wide Strategy on Zero Plastic Waste
- Canada-wide Action Plan on Zero Plastic Waste

The Government of Canada is implementing a circular economy and lifecycle approach to reduce plastic waste, increase the value recovery of plastics, and tackle plastic pollution. Canada is implementing its comprehensive agenda towards zero plastic waste by 2030. This includes working with all levels of government, industry and civil society on a range of complementary actions that prevent and reduce plastic waste and pollution from land and aquatic-based sources.

Actions include: prohibiting harmful or problematic single-use plastics and microbead-containing toiletries; investing in innovative solutions; reducing plastic waste in government operations; advancing science to inform solutions and measure progress; supporting communities to prevent and remove plastic pollution; working with industry to prevent and retrieve lost fishing gear and find circular solutions across sectors; and contributing to global action such as through the Ocean Plastics Charter and the development of a new global agreement on plastic pollution.

In addition to these efforts, the Government has committed to:

- require at least 50% recycled content in plastic packaging by 2030;
- establish a recycling target of 90% for plastic beverage containers;
- introduce labelling rules for recyclability and compostability claims for plastics; and,
- support extended producer responsibility with a federal public plastic registry that requires producers to report on plastics in the Canadian economy.

In November 2018, through the Canadian Council of Ministers of the Environment, the federal, provincial and territorial governments adopted the Canada-wide Strategy on Zero Plastic Waste. Building on the Ocean Plastics Charter, the Strategy takes a circular economy and lifecycle approach to plastics and provides a framework for collaborative action in Canada.

The federal, provincial and territorial governments also adopted a Canada-wide Action Plan on Zero Plastic Waste to implement the Strategy. The Plan, developed in two phases, sets out tangible actions and clear timelines to better prevent, reduce, reuse, recover, capture and clean up plastic waste and pollution in Canada.

Phase 1 of the Action Plan (2019) identifies actions to improve the circularity of plastics in the economy and make the systems change needed to reduce plastic waste. Phase 1 activities includes achieving consistent extended producer responsibility programs, determining a roadmap to address single-use and disposable plastics, support for recycling infrastructure and innovation in plastics manufacturing, tools for green procurement practices, and a roadmap to establish targets for specific sectors to strengthen value-retention processes such as repair, reuse, refurbishment and remanufacture.

Phase 2 of the Action Plan (2020) outlines additional coordinated actions to: improve consumer, business and institution awareness; reduce waste and pollution from aquatic activities including fishing and aquaculture; advance science on the impacts of plastic pollution and inform solutions along the value chain; support capture, clean-up and prevention of plastic pollution; and contribute to global action.

Chile

- National Strategy for the Management of Marine Litter and Microplastics

  The general objective of this strategy is to articulate the national public policy around the management of marine litter and microplastics, providing national guidelines to focus the management, promote coordination and coherence of the actions of the different sectors with competence. In order to reduce, recover and prevent the entry of waste into aquatic ecosystems and its impacts. In addition, this strategy considers an action plan for the period 2020-2030.

  The specific objectives are:

  - Identify the stakeholders that directly and indirectly generate waste from terrestrial and marine sources.
  - Establish and apply voluntary and mandatory environmental management instruments to prevent the generation of marine debris at its source and reduce its impacts.
  - Encourage research and innovation for the development and refinement of new methodologies and solutions for monitoring, prevention, reuse and recovery of marine debris.
  - Build capacity and knowledge among stakeholders involved in the generation and management of marine debris.
  - Encourage the participation of the private sector to promote investment, trade and market creation in industries and activities that allow the prevention and proper management of marine debris.
  - Promote international cooperation, the exchange of information at a regional and global level, and technical assistance to make progress toward reducing marine debris and its impacts.

China

- Opinions on Further Strengthening Plastic Pollution Control (2020)

  China issued the Opinions on Further Strengthening Plastic Pollution Control, which requires positive response to plastic pollution, orderly prohibits or restricts part of the production, sale and use of plastic products, and actively promotes their substitutes. It also requests to increase the supply of green products, develop a robust plastic waste recycling system, and establish and improve the system of management of each link. According to the Opinions, we will take strong, orderly and effective measures to control plastic pollution. The main objectives are to take the lead in banning and restricting the production, sale, and use of some plastic products in specific regions and areas. By 2022, the consumption of single-use plastic products will be on a trajectory of significant reduction, substitute products will be promoted, and the proportion of the plastic wastes that can be used as resources and energy will be significantly increased. For sectors facing grave plastic pollution, such as e-commerce, express and food delivery, a number of models of plastics reduction and green logistics will be developed in mainstreaming and optimization programmes. By 2025, the management system for the production, distribution, consumption, recycling, and disposal of plastic products will be basically established, and a joint governance system engaging multiple stakeholders will be basically built. The development capacity of substitute products will be further improved. The amount of plastic wastes in key cities will be significantly reduced, and plastic pollution will be effectively controlled.

- Action Plan on Plastic Pollution Control (2021-2025)

  China issued the Action Plan on Plastic Pollution Control (2021-2025) to further strengthen the whole-chain control of plastic pollution and promote the white pollution control to achieve greater results during the 14th Five-Year Plan period. By 2025, the plastic pollution control mechanism will operate more effectively, the relevant tasks of local governments, departments and enterprises will be completed, and governance of whole-chain plastic will cover production, circulation, consumption, and recycling. Plastic disposal will be more effective, and white pollution will be better curbed. In terms of source reduction, the irrational use of disposable plastic products in key areas such as commodity retail, e-commerce, food takeout, express delivery, accommodation will be greatly reduced, secondary packaging will be basically eliminated in delivery service, and the application scale of recyclable packaging in delivery will reach 10 million. In terms of recycling and disposal, cities at prefecture level and above will basically establish domestic waste classification, delivery, transportation and treatment systems according to local conditions, and the collection and transfer efficiency of plastic waste will be greatly improved; the incineration capacity of municipal solid waste in China will reach about 800,000 tons/day, and the direct landfill volume of plastic waste will be greatly reduced; the recovery rate of agricultural film will reach 85%, and the residue of plastic film will achieve zero growth. In terms of garbage removal, the historical plastic waste left in open sites in key water areas, tourist attractions and rural areas will be basically eliminated. The leakage of plastic waste to the natural environment will be effectively controlled.

Colombia

- National Plan for the Sustainable Management of Single-Use Plastic

  This plan is mainly oriented to the development of actions within the framework of circularity, promotion of the use of reusable products and recycling of materials. Progress will be made in the gradual substitution of plastics considered unnecessary.

  The content of this technical instrument includes initiatives aimed at improving the environmental characteristics of plastic products, promoting the rational use of single-use plastics, placing reusable materials on the market and modifying the culture in commercial establishments and home services. It also includes actions aimed at basic and applied research for new substitute materials and the generation of reverse logistics mechanisms.

  In addition, the plan presents cross-cutting actions, fundamental to facilitate management, highlighting labeling, eco-design, communication and culture towards sustainable lifestyles, research, coordination with the public sanitation service, as well as restrictions on the use of plastic in areas of National Natural Parks.

  Additionally, Colombia during the period 2021-2022, through the delegates of DAMCRA and DAASU, contributed at the international level in the joint construction for the development of action plans to address marine debris and plastic pollution in the Northeast and Southeast Pacific regions. As a result, to date, the following are in place:

- Marine Debris Action Plan for the Northeast Pacific 2022-2026

  Marine Debris Action Plan in final version prepared and edited, whose official launch took place on June 8, 2022 during the Oceans Day with the participation of the Director of DAMCRA on behalf of Colombia.

- Regional Plan for Integrated Management of Marine Debris in the Southeast Pacific

  Regional Plan, which was approved on April 4, 2022, by the General Authority of the Southeast Pacific Action Plan.

Costa Rica

- National Marine Residues Plan Costa Rica, 2021-2030 (Plan Nacional de Residuos Marinos)

  *Translation note: For Costa Rica the use of litter or waste in this document is referred in Spanish as “residuos” and not “desechos” or “basura”. The use of the term residues is preferred in most parts.

  The plan is designed under a highly participatory methodology of the various sectors linked to waste management and sea users, establishing a mission and vision, as well as the guiding principles or approaches. It establishes a diagnosis of the state of the situation, its background and the series of methodological steps that guided the design.

  It also includes the identification of the source of terrestrial and marine residues, the impact on ecosystems and the proposed monitoring to improve the conditions of rivers, coasts and the sea, on the basis of the most recent regulations that the country has and identifying the gaps that it has in the light of international regulations.

  In order to advance faster, the plan establishes the primary action of education, awareness and information to sensitize citizens, as well as research, development and innovation to learn more about marine residues and its management. Undoubtedly, these activities will not be possible without the financing of cooperation mechanisms. Finally, as an implementation engine, an intersectoral governance body is established to execute the actions summarized here.

Fiji

- National Ocean Policy 2020 – 2030

  The policy intends to support, synergies, promote and establish best practice standards for oceans management within the Fijian Government and for all relevant stakeholder groups including community groups, non-government organizations and, the private sector. The policy charts a path to the strengthening of sectoral polices and legislations based on identified gaps, lessons learned from national implementation, evolving international good practices, and recent international developments and commitment.

France

- Action Plan for the Marine Environment (Marine Strategy Framework Directive – MSFD)

  The MSFD aims at protecting more effectively the marine environment across Europe by achieving the good environmental status of the EU marine waters. The comprehensive document identifies the main pressures such as marine litter. EU member States have drawn up a programme of measures to attain good environmental status. The first cycle of the programme closed in 2021, the second cycle is now being applied.

- Biodiversity plan: Target - “0 plastic reaching the sea in 2025”

  The biodiversity plan has been published in 2018. It sets up the national strategy to protect biodiversity. It tackles multiple aspects of the national environmental policy such as climate adaptation and plastic reduction.

- National Roadmap against Marine Litter “0 plastic reaching the sea 2019-2025”

  The objective of this roadmap is ambitious: ending the dumping of plastic waste at sea by 2025 by implementing 35 actions aiming at preventing plastic pollution and raising awareness. This national roadmap translates the biodiversity plan into concrete actions.

- National Roadmap for a circular economy

  https://circulareconomy.europa.eu/platform/fr/node/783

  It aims at achieving a transition towards a circular economy by providing national citizens with the means to adopt a more sustainable consumption and make progress in waste separation.

- National "3R" strategy on single use plastic packaging

  This strategy has been adopted by decree on April 2022 and defines actions and measures to implement the 3R objectives for 2025 as specified by the "3R" Decree for reduction, reuse and recycling of single use plastic packaging for 2021-2025; and presents a vision for reaching the goal to eliminate all single use plastic packaging by 2040.

Germany

- German Resource Efficiency Program III (ProgRess III)

  With the adoption of the German Resource Efficiency Programme (ProgRess) in February 2012, Germany was among the first countries to determine targets, guiding principles and approaches to the conservation of natural resources. The German government is obligated to submit a report to the Bundestag on developments in resource efficiency in Germany every four years and to update the programme. The first update report, ProgRess II, was adopted by the Federal Cabinet on 2 March 2016, the second, ProgRess III, on 17 June 2020. ProgRess III includes measure 78:

  - "Initiating an international convention for protecting the world's oceans from plastic waste

    The German government, together with other ambitious countries, is striving to initiate an international convention on protecting the world's oceans from plastic waste. Plastic waste entering our oceans is currently a major environmental problem and puts an enormous strain on natural resources that endangers organisms, marine ecosystems and human health, for example through microplastics which can be absorbed by eating fish. At the fourth session of the United Nations Environment Assembly (UNEA 4), the proposal for an international convention for protecting the oceans from plastic waste was met with widespread support. However, a mandate has not yet been issued. Together with like-minded countries, the German government will draw up an agenda for further steps to enhance cooperation on the prevention of plastic waste. An important intermediate target is to achieve a consensus at UNEA 5 on a mandate to develop a legally binding convention."

- MSFD Programme of Measures (PoM)

  The Marine Strategy Framework Directive (MSFD, 2008/56/EC) aims at achieving or maintaining a Good Environmental Status in European Marine Waters. Descriptor 10 in Annex I demands, that marine litter should not harm the marine environment. To achieve this goal, a monitoring of litter in the different marine compartments has been set up and 11 measures have been adopted to tackle the relevant sea- and land-based sources.

- Action Plan "Nein zur Wegwerfgesellschaft"

  At the end of 2018, the German Federal Environment Ministry presented its 5-point plan for less plastic and more recycling. The goal: Out of the throwaway society. With the 5-point plan, the BMU has initiated important steps toward less superfluous packaging, fewer products to throw away, less waste, and more recycling. From currently more and more waste to less and less waste. The following priorities are important:

  - Avoiding superfluous products and packaging - and banning them if necessary. This applies, for example, to disposable products, but also to deliberately used microplastics in cosmetics.
  - Make packaging more environmentally friendly, strengthen reusable packaging.
  - Promote environmentally friendly product design.
  - Close material cycles through intelligent and high-quality recycling.
  - Reducing input of plastic litter into the environment

Indonesia

- National Plan of Action on Handling Marine Plastic Litter

  The NPA on MPL is regulated by Presidential Regulation No. 83/2018 concerning Handling Marine Litter, it is a collaborative action plan that involved 16-line ministries to reduce MPL by 70% in 2025 using 2018 baseline.

Italy

- Implementation of the Directive 2008/56/EC on Marine litter and update of the Regional Plan on the Marine Litter Management in the Mediterranean in the Framework of Article 15 on the Land Based Sources Protocol.

  According to the art. 11 of the Marine Strategy Framework Directive, every 6 years, Italy plans and reports to the European Commission the assessment status of the marine environment related to the Descriptor 10 (Marine litter). To do that, a National Monitoring program on beach litter, floating litter, seafloor litter, microlitter, and litter ingested by biota is developed in order to verify the marine good environmental status (GES) according tothe threshold values defined or trend assessment. To achieve the GES according to the art. 13 of the MSFD, programme of measures is defined. Moreover, Italy according to the Convention for the Protection of the Mari ne Environment and the Coastal Region of the Mediterranean and its Protocols (Barcelona Convention) is implementing the updated Regional Plan on the Marine Litter Management in the Mediterranean, amended, in Antalya (Türkiye), 7 10 December 2021, during the 22nd Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean and its Protocols.

Japan

- National Action Plan for Marine Plastic Litter (formulated in 2019)

  In May 2019, the “National Action Plan for Marine Plastic Litter” was formulated. The action plan listed effective countermeasures to realize a world without additional pollution from plastic in the following eight fields: 1) Sound waste management systems, 2) Prevention of littering, illegal dumping and unintentional leakage of waste into the oceans, 3) Collection of scattered waste on land, 4) Innovation in development of and conversion to alternative materials, 5) Removal of plastic litter from the oceans, 6) Multi-stakeholder involvement and awareness-raising, 7) Sharing scientific information and knowledge: R&D and Monitoring, and 8) International cooperation.

Mexico

- Participation in specialized working groups

  The General Coordination of Ports and Merchant Marine, through the General Direction of Merchant Marine has participated in work sessions as a part of the Working Group of the Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) and the Working Group to address Marine Plastic Litter from Ships of the Subcommittee on Pollution Prevention and Response (PPR) of the International Maritime Organization, which seeks to classify plastic pellets as hazardous material and mitigate the negative impact of plastics and microplastics.

  As a part of Mexico´s commitment with the 2030 Agenda for Sustainable Development, we have a regulation at the national level that contributes to the accomplish of the SDG14: Life Below Water. Besides, among the legal instruments is the Agreement through which the National Policy of Seas and Coasts of Mexico, the Federal Law of the Sea, the General Law of Ecological Balance and Protection of the Environment and the General Law of Sustainable Fisheries and Aquaculture.

Myanmar

- National Plastic Action Plan in Myanmar is being developed with the technical assistance of (Japan-ASEAN Integration Fund (JAIF))

  Strengthening Capacity for Marine Debris Reduction in ASEAN region through the formulation of National Action Plans for the ASEAN Member States and Integrated Land-to-Sea Policy Approach Project is implementing in Cambodia and Myanmar to formulate the National Plastic Action Plan on marine debris.

  Overall Goal: Reducing marine plastic debris by Integrated Land-to-Sea approach with:

  - Concrete plans focusing on implementation
  - Maximizing the use of reginal/national resources through cooperation
  - Consistency with existing regional/national framework.

  To achieve the overall goal, the following four pillars of activities will be set which are in line with regional frameworks in ASEAN, such as ASEAN Framework of Action and ASEAN Regional Action Plan

  - Policy Support and Planning
  - Research, Innovation and Capacity Building
  - Public Awareness, Education and Outreach
  - Private Sector Engagement

  In order to develop the National Plastic Action Plan, a Technical Working Group has set up and data will be collected in the 3 pilot cities.

Nepal

- The Action Plan to Ban Plastic Bags 2022

  Specifies the activities and role of different stakeholders for the effective implimentation of Plastics Bag Bann.

Netherlands

- Policy programme on (micro) plastics – European Marine Strategy Framework Directive

  In 2018 the Netherlands has adopted a circular economy transition agenda for plastics. The aim is to close the loop for plastics by using them more intelligently and more economically and by utilizing more high-quality secondary raw materials and biomass.

- To accelerate the transition to a closed-loop plastics chain and reduce emissions of CO_2, the Plastics Transition Agenda has detailed four courses of action:

  - Prevention: more with less and reduced leakage;
  - Greater supply and demand for renewable plastics;
  - Better quality and better environmental returns;
  - Strategic cooperation, across the value chain.

  The implementation programme for this agenda includes seven projects that are intended to put these four developmental aspects into practice. Together with all the actors, both public and private, efforts and investments will be made over the coming years with the aim of creating a fully circular plastics value chain by 2050.

  As part of the transition agenda for plastics a specific policy programme has been developed for micro plastics. This subprogramme is part of the prevention track and it focusses on:

  - Banning deliberate additions of microplastics in products at the European level;
  - Tackling the emissions of microplastics as a consequence of the breakdown of plastic litter;
  - Cutting down on emissions of microplastics as the result of wear and tear on products such as car tyres, paint and clothing;
  - Getting a better understanding and a better picture of the effects of microplastics in the human body.

In 2015, the Netherlands adopted the national Program of Measures, as part of the implementation of the Marine Strategy Framework Directive (MFSD). Based on top 10 beach litter items and taking into account existing waste management measures, three so-called Green Deals were adopted to tackle litter from beach-recreation, shipping and fishing. In these Green Deals actions and obligations for government authorities, entrepreneurs, civil society organisations and private individuals are brought together. In addition, attention was given to Education programmes, Awareness-raising, specific plastic items like balloons and microplastics in cosmetics and measures to deal with riverine litter (Clean Rivers Initiatives).

A knowledge generating programme has been started to obtain knowledge on distribution, composition and effects from riverine litter and microplastics. Currently this program is being updated. A new program will be adopted in 2022.

The second MSFD Programme of Measures was adopted in March 2022. The program contains measures necessary to achieve the environmental targets set for the Dutch part of the North Sea, including measure combating marine litter. In addition, the document contains a knowledge agenda.

The Netherlands is complying with EU legislation contributing to reducing marine litter, such as the EU Single Use Plastics directive and the EU Port Reception Facilities directive.

Furthermore the Netherlands is implementing OSPAR's Regional Action Plan on Marine litter that is currently also being updated. Adoption is foreseen in 2022.

Finally, the Dutch and European plastic pacts were launched in 2019 respectively 2020. Goal is to bring together frontrunner companies and governments in the NL and EU to accelerate the plastics economy. Goals are to use

- 20% less plastics (EUR PP 20% less virgin of which 10% absolute reduction),
- Use at least 30% (in NL plastic pact 35%) of recycled plastics in new plastics,
- Design 100% recyclable and reusable products where possible
- Increase the recycling rate by 25% (EUR PP), or achieve 70% recycling of all plastics used (NL PP)

Norway

- Norwegian Plastics Strategy (in Norwegian: Noregs plaststrategi). An English version of the strategy can be found here.

  https://www.regjeringen.no/en/dokumenter/norwegian-plastics-strategy/id2867004/

  Launched in August 2021. The Norwegian Plastics Strategy/ action plan describes action taken and action that is under implementation to reduce plastic litter and plastic pollution, across the entire life-cycle of plastics, in Norway as well as Norwegian priorities internationally. It adresses measures to reduce plastic pollution across various value-chains and sectors, both from land-based and sea-based sources. The strategy also includes measures on clean-up of marine litter.

  The plan includes measures to promote more sustainable value chains for plastics, as well as measures to reduce discharges of plastic waste to the environment from sectors such as fisheries and aquaculture, agriculture, transport, building, as well as household waste.

  It also describes measures to reduce use of single use plastic products and measures to phase out hazardous substances in plastic products in order to increase the amount of plastic waste that can be safely recycled.

- Norway is part to the EEA-agreement and an integral part of the European internal market, and many measures described in the plan will be further developed in close cooperation with the European Union.

- On clean-up, it includes measures to strengthen knowledge and coordination of clean-up efforts in Norway, including between volunteers and private sector.

- We have made good progress in the following up of the strategy that was launched a year ago. Further details is described below.

  This includes implementation and preparation for implementation of the relevant EU-directives and international regulations including under the Basel convention. In addition Norway has a specific action plan against plastic litter from commercial and recreational fisheries and aquaculture. The Directorate of fisheries publishes regularly updates on its implementation. The action plan is under translation to English.

- The new centre against marine litter (Marfo), which from 1.1.2022 was established as an administrative body under the Ministry of Climate and Environment, contributes significantly to strengthen and disseminate knowledge on clean-up, and on marine litter from fisheries and aquaculture.

- A national strategy for a Green, Circular Economy launched in 2021 (In Norwegian: Nasjonal strategy for ein grøn, sirkulær økonomi Nasjonal strategi for ein grøn, sirkulær økonomi:

  https://www.regjeringen.no/no/dokumenter/nasjonal-strategi-for-ein-gron-sirkular-okonomi/id2861253/)

  This strategy includes measures to promote a circular economy for plastics, and thus contribute to the reduction on marine plastic litter and plastics pollution.

Republic of Korea

- The 1st National Action Plan on marine litter and marine contaminated sediment(2021-2030)

  The 1st National Action plan on marine litter and marine contaminated sediment(2021-2030) is the 4th national plan established in 2021 to tackle marine litter problem in the Republic of Korea. Like its predecessors, the plan incorporates comprehensive measures to address various marine litter ranging from contaminated sediment to marine plastic litter including microplastics based on resource circulation and carbon-neutral approach.

  The plan sets its goal to cut the amount of marine plastic litter by 60% until 2030 and will achieve MPL-free ocean by 2050 through meticulously designed 5 marine litter reduction strategies and 40 action plans.

  - Prevention
    - Enhance management of the marine litter source from the sea such as ALDFG, the waste from ships
    - Enhance management of the marine litter entering from the land through marine litter barrier at estuaries and clean-up activities at estuaries
    - Enhance management of the foreign marine litter source through international cooperation on marine litter policies and research
  - Reinforcement of marine litter collection
    - Expand the target areas of marine litter collection with a goal to cover remote places
    - Enhance public-private partnership to leverage various marine litter related stakeholders to encourage wide participation for clean-up activities
    - Develop innovative marine litter collection technologies and increase the number of marine litter monitoring sites to obtain accurate marine litter data
  - Enhance infrastructure for marine litter disposal and recycling
    - Increase the number of eco-friendly marine litter disposal areas for local fishermen communities
    - Introduce pre-processing facilities for marine litter in order to effectively recycle
    - Research and development for new and efficient recycling technologies
  - Comprehensive approach to strengthen marine litter management system
    - Establish 'National Marine litter Committee' in order to do prompt decision making for urgent marine litter related issue
    - Implement microplastic monitoring to evaluate and assess
    - International cooperation through regional, multilateral, bilateral frameworks
  - Public education and campaigns to raise awareness
    - Design various education and public campaigns targeting all range of age groups

Republic of the Marshall Islands

- Legislation for the prohibition of (I) single use plastic bags, single use Styrofoam plastic cups and plates (II) container deposit legislation 2016

  Law bans manufacture and importation and use of; single use plastic bags, Styrofoam products such as cups, plates, single use plastic cups and plates; Container deposit legislation introduced recycling of PET bottles and pay refund fees for all recycled PET bottles.

Samoa

- National Waste Management Strategy 2019-2023

  The National Waste Management Strategy 2019-2023 provides an integrated framework for the sound management of solid waste and chemical and hazardous waste in Samoa.

Saudi Arabia

- National action plan for sustainable management of Marine Litter in the Red Sea coast of Kingdom of Saudi Arabia.

  The plan is part of a regional effort by the "The Regional Organization for Conservation of the Environment of the Red Sea and the Gulf of Aden". A final draft of the action plan is currently undergoing final stages of approval before implementation. Key components include: Public awareness campaigns, engagement plans with key stakeholders, evaluation of enforcement mechanisms, adequacy of port reception facilities at the red sea, developing and monitoring flagship demonstration actions, engage private companies to phase out single use plastic bags, water bottles, straws, etc…plan for coastal land owners to regularly collect litter plastic from their area of operation, re-survey beaches with baseline data, support local marine research institutes to protect coastal marine environment from littering in addition to training and capacity building.

Senegal

- National action plan for the implementation of the plastic law

  The national action plan is developed as part of the implementation of the plastic law. It takes into account the prevention and fight against marine plastic pollution. This national action plan doesn't specifically address the actually existing plastic pollution in the marine environment.

Singapore

- National Action Strategy on Marine Litter

  Singapore has launched its National Action Strategy on Marine Litter in June 2022. The Strategy outlines Singapore's actions and measures to combat marine litter across six priority areas tailored to our local context:

  - Reduction of land-based sources of litter
  - Reduction of sea-based sources of litter
  - Circular Economy approach

- Research & Development
- Maintaining and Strengthening Outreach and Stakeholder Engagement
- International Engagement and Collaboration.

The Strategy demonstrates Singapore's commitment to address marine litter domestically and contribute to international efforts to tackle this transboundary challenge. It also seeks to invigorate further efforts from all sectors of society to play their part, thus enabling a Whole-of-Nation approach to tackle marine litter.

A copy of the National Action Strategy on Marine Litter can be found at the following URL:

www.mse.gov.sg/nasml

Spain

- Program of Measures on Marine strategies

  National Circular Economy Strategy (Spain Circular 2030) and Circular Economy Plan 2021-23

  Marine Strategies, are the planning instrument for the marine environment created under Directive 2008/56/EC of 17 June 2008 establishing a framework for Community action in the field of marine environmental policy (Marine Strategy Framework Directive), and their main objective is to achieve Good Environmental Status (GES) for our seas by 2020 at the latest. Descriptor 10 is marine litter, and its study includes an initial evaluation, definition of good environmental status, setting targets, action and monitoring programs.

  Spain Circular 2030 lays the foundations for promoting a new production and consumption model in which the value of products, materials and resources is retained in the economy for as long as possible, in which waste generation is minimized and used as efficiently as possible, the generation of waste is reduced to a minimum and those that cannot be avoided are used to the greatest possible extent. The Strategy contributes to Spain's efforts to achieve a sustainable, decarbonized, resource-efficient and competitive economy. This strategy will be materialized through successive three-year action plans, the first being the Circular Economy Plan 2021-23. Although it is not specific for marine litter, it contributes overall to achieve a circular economy, and thus improve wasted management that can potentially end up in our marine environment.

Sri Lanka

- National Action Plan on Plastic Waste Management 2021-2030

  Overall objective of the policy is enabling a healthy life and Cleaner Environment for all. National Action Plan on Plastic Waste Management 2021-2030 consists of 15 goals and Goal 05 represents focuses on Reduction of marine plastic pollution comprising macro and micro plastics flowing into ocean through land-based activities by 80% by 2030.

  Preparation of Integrated Marine Litter management sectoral policy, strategy and action plan under the National Policy on Waste Management is on going. This will be able to tackle the marine litter issue.

Thailand

- Thailand's Roadmap on Plastic Waste Management 2018-2030

  The Roadmap can be divided into: the Plastic Waste Management Action Plan phase I (2018-2019) and phase II (2020-2022) and marine plastic litter measure is attached under the Plastic Waste Management Action Plan.

Türkiye

- Marine Litter Provincial Action Plans

  Türkiye has 28 coastal provinces. Under the chairmanship of Governors, these cities have settled commissions for the preparation of Marine Litter Provincial Action Plan. These commissions are composed of, related institutions, academia, NGO's. Each of these commissions has prepared their local Marine Litter Action Plans in line with the template given in Circular on Marine Litter Provincial Action Plans' Preparation and Implementation. The provincial action plans put into force in 2020, which are valid for 5 years. The studies are annually reported to the Ministry of Environment, Urbanization and Climate Change by the Governorships.

United Arab Emirates

- National Integrated Waste Management Strategy

  The national integrated waste management strategy has been prepared to reflect the commitment of all stakeholders in the UAE to protect the environment from the effects of waste management activities, improve waste services according to the waste management hierarchy and promote the circular economy. The projects and programs of the strategy that will be carried out by the federal and local government, in addition to the private sector aim to enhance the circular economy by improving the mechanism of waste disposal, intensifying recycling efforts, adopting the concept of extended producer responsibility, and spreading awareness in the Emirati society.

  The strategy is designed with strategic directions that represent the main priorities of waste management in the UAE to cover the following:

  - Promoting sustainable production and consumption programs in avoiding waste generation.
  - Developing sorting, reusing, recycling and treating waste activities by adopting a circular economy approach.
  - Ensure implementing proper healthy engineered disposal systems applications in landfills.
  - Building research, development and innovation capabilities and adopting advanced technologies in integrated waste management.

United Kingdom

Many UK policies, such as waste management, are devolved matters, which means each administration (England, Wales, Scotland and Northern Ireland) has its own strategies and action plans. Below, and in subsequent sections these are classified either as UK, where they pertain to all four administrations, or by each administration where the policies are devolved.

- UK Marine Strategy

  The UK Marine Strategy provides the framework for assessing and taking measures to achieve and maintain Good Environmental Status (GES) in UK seas. It covers a wide range of biodiversity and marine environment descriptors including marine litter.

  In March 2021 an updated UK Marine Strategy Part Two was published, setting out the monitoring programmes that will be used to assess progress towards updated GES targets, published in the updated UK Marine Strategy Part One in 2019. We are currently updating the UK Marine Strategy Part Three, which sets out a programme of measures for achieving or maintaining GES, following a consultation which ran September - November 2021

  https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/971696/uk-marine-strategy-part-two-monitoring-programmes-2021.pdf

  https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/921262/marine-strategy-part1-october19.pdf

  https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/486623/marine-strategy-part3-programme-of-measures.pdf

- UK Plastics Pact

  UKPP members cover the entire plastics value chain and are responsible for the majority of plastic packaging sold through UK supermarkets, and approximately two thirds of the total plastic packaging placed on the UK market.

  By 2025, The UK Plastics Pact will transform the UK plastic packaging sector by meeting four world-leading targets.

  - 100% of plastic packaging to be reusable, recyclable or compostable
  - 70% of plastic packaging effectively recycled or composted
  - Eliminate problematic single-use items
  - 30% averaged recycled content across all packaging

- 25 Year Environment Plan

  This plan sets out the UK government's plan to improve the environment within a generation, including the approach to tackling marine pollution of all kinds and in particular material that came originally from land.

  Relevant goal in the 25 Year Environment Plan:

  - Minimising waste

  Relevant target in the 25 Year Environment Plan:

  - Significantly reducing and where possible preventing all kinds of marine plastic pollution – in particular material that came originally from land

England

- The Resources and Waste Strategy for England

  published in 2018, contains commitments towards reducing marine plastic pollution through circular economy policy measures and international cooperation.

- Litter Strategy for England.

  One way in which waste ends up in the marine environment is through littering that occurs on land. We published the Litter Strategy for England in April 2017, setting out our aim to deliver a substantial reduction in litter and littering within a generation. The Litter Strategy brings together communities, businesses, charities and schools to bring about real change by focusing on three key themes: education and awareness; improving enforcement; and better cleaning and access to bins. We publish a dashboard of different indicators each year to monitor the extent of litter and littering in England.

- Waste Prevention Programme for England.

  The Waste Prevention Programme is being revised following consultation in 2021. The new Programme builds on and embeds the strategic principles referred to in the Resources and Waste Strategy. Our goal is for a circular economy approach which retains products and goods in circulation for as long as possible and at their highest value. The new Programme will set out priorities for action to manage resources and waste in accordance with the waste hierarchy as well as setting out how we can work with communities and businesses to reduce litter.

  https://www.gov.uk/government/publications/resources-and-waste-strategy-for-england

Scotland

- Marine litter strategy for Scotland (www.gov.scot).

  This is currently under review, with a refreshed Strategy due for consultation in 2021 with an increased focus on marine litter removal. It provides the framework for marine litter policy and legislation development by improving relevant public and business behaviours, reducing sources, improving monitoring and strengthening co-ordination nationally and internationally. As the majority of marine litter comes from land, The Marine Litter Strategy is closely linked with our terrestrial strategy for litter and fly-tipping; Towards a Litter-Free Scotland. This is also under review with a refreshed version expected in 2022. Fly-tipping, coastal or otherwise, comes under the Rural Crime Strategy, 2019-2022. The improved management of plastic as a material is targeted through our circular economy strategy;

Scotland: Making Things Last – A Circular Economy Strategy. Our circular economy bill consultation was published in May 2022.

https://www.gov.scot/

https://www.zerowastescotland.org.uk/litter-flytipping/national-strategy#:~:text=Towards%20a%20litter-free%20Scotland%20Scotland%E2%80%99s%20national%20litter%20strategy,of%20interventions%20and%20collaborative%20efforts%20to%20drive%20change

https://www.zerowastescotland.org.uk/sites/default/files/sparc-strategy-2019-2022.pdf

https://www.ellenmacarthurfoundation.org/case-studies/scotland-making-things-last-a-circular-economy-strategy#:~:text=The%20Scottish%20Government%20developed%20a%20strategy%20in%202016,and%20individuals%20to%20jointly%20work%20towards%20that%20goal

https://www.gov.scot/publications/delivering-scotlands-circular-economy-consultation-proposals-circular-economy-bill/

Northern Ireland

- New Decade New Approach

  In January 2020, the priorities of the restored Executive were published in the New Decade New Approach (NDNA) document. NDNA includes the commitment that the Executive will create a plan to eliminate plastic pollution. The plan is currently being drafted, with the aim to get ministerial approval by the end of 2022, early 2023, to go to consultation thereafter. In line with this plan the Marine Litter Capital Grant Scheme was established in 2021 and is now in its second year. Among its aims, the grant scheme supports groups and organisations to prevent litter and plastic pollution from entering the marine environment.

- Single Use Plastic (SUP) Directive (EU Directive 2019/904 on the reduction of the impact of certain plastic products on the environment)

  In December 2020, as part of UK withdrawal from the EU, elements of the SUP Directive were added to Northern Ireland Protocol. From 01 January 2022 parts of SUP Directive were intended to apply to Northern Ireland as part of the UK obligation. Discussions on the Northern Ireland Protocol are ongoing between the UK and the EU. Once introduced:

  - Article 5 will ban (cannot be 'placed on the market' and products cannot be introduced however retailers can use existing stocks) 1) cotton bud sticks, 2) cutlery (forks, knives, spoons, chopsticks), 3) plates, 4) straws, 5) beverage stirrers, 6) sticks to be attached to and to support balloons, 7) food containers made of expanded polystyrene, 8) beverage containers made of expanded polystyrene including their caps and lids, 9) cups for beverages made of expanded polystyrene including covers and lids, 10) products made from oxo-degradable plastic.
  - Article 7 – markings and labelling requirements will become mandatory for – Sanitary towels (pads), tampons and tampon applicators, wet wipes, tobacco products with filters, and drinking cups must bear a "conspicuous, clearly legible and indelible" label on the packaging or on the product itself. The label must inform consumers of appropriate waste management options for the product or waste disposal means to be avoided, as well as the presence of plastics within the product and the negative impact of littering.

- Reduction of Single-Use Plastic Beverage Cups and Containers- Department for Agriculture, Environment and Rural Affairs (DAERA) Consultation

  Following consultation in late 2021, DAREA is currently considering proposals for the reduction of the usage of Single-use Plastic (SUP) beverage cups and food containers in Northern Ireland. The goal of the policy is to reduce the use of the targeted types of SUP packaging and to encourage the wider take up of multi-use and/or single-use non-plastic alternatives.

- Circular Economy Strategy (under development as of January 2022)

  The Department for the Economy (DfE) is currently developing a Circular Economy Strategy (CES) for Northern Ireland. Recognising Circular Economy as a crosscutting theme for the Executive, this work is progressed in partnership with officials across the Government Departments. Focus areas have been identified which present the greatest opportunity to lead the transition. These include four business sectors and four material flows one of which is packaging including plastics.

- The Northern Ireland Waste Prevention Programme.

  Reviewed in 2019 and an interim revised programme with 22 actions was published July 2020 to provide a short extension to the programme pending the introduction of a new Circular Economy Waste Package (CEWP).

  https://www.daera-ni.gov.uk/publications/waste-prevention-programme-northern-ireland-stopping-waste-its-tracks

- Northern Ireland Marine Litter Strategy,

  was published in 2013 and an update is expected to take place during 2021.

  https://www.daera-ni.gov.uk/publications/northern-ireland-marine-litter-strategy

Wales

- Wales Marine Litter Action Plan 2020-23,

  has prevention, collaboration and long-term solutions as its core principles. The plan sets out actions to address marine litter at source through preventative action, connecting the community through a volunteer led response and promoting behaviour change through targeting messaging and interaction.

- Wales Waste Prevention Programme – 2013-2050

  The Waste Prevention Programme will ensure that householders and businesses in Wales are able to reduce:

  - The quantity of waste, including through the reuse of products or the extension of the life span of products.
  - The adverse impacts of the generated waste on the environment and human health.
  - The content of harmful substances in materials and products.

US

- Save Our Seas 2.0 Act, Title 3, Section 301 “Plastics Strategy”

  No - The United States does not currently have a national action plan specific to marine plastic litter. There are several national-level laws, as described in 2.2 “Legal Framework”, that provide a comprehensive legal framework to address marine plastic litter. Domestic legislation also created an inter-agency body (the U.S. Marine Debris Coordination Committee, described below), that ensures cooperation across U.S. agencies to address marine debris more broadly. Further, through NOAA’s Marine Debris Program, the U.S. has developed eleven sub-national marine debris action plans that identify and prioritize activities to reduce marine debris impacts, coordinate local level implementation, and help better understand the scope and scale of the issue in the U.S. coastal and marine environment. The NOAA Marine Debris Program also has a national level strategic plan that drives priorities and actions. EPA has a strategy under Save Our Seas 2.0 Act, Title 3, Section 301 which provides actions needed in the United States to reduce the amount of plastic waste entering waterways and oceans. The strategy identifies strategic objectives and voluntary actions that all U.S. stakeholders can implement to reduce, reuse, collect, and capture plastic waste. This strategy is not a comprehensive strategy for the government as a whole.

EU

- EU Strategy for Plastics in a Circular Economy (2018)

  Emphasis on prevention of litter from both land- and sea-based sources is the cornerstone of EU policies against plastic pollution of oceans and the seas. Clean-up actions can be meaningful when litter accumulations create serious risks for marine or coastal biodiversity and habitats or negative socioeconomic effects. The EU is furthermore committed to close collaboration with its neighbours within the four Regional Seas Conventions around Europe and with other non-EU countries in global fora such as UN, G20 and G7.

  The EU Strategy for Plastics in a Circular Economy (2018) is the first EU-wide policy framework adopting a material-specific life-cycle approach integrating design, use, reuse and recycling. It also aims at increasing the uptake of alternative materials where evidence clearly shows that they are more sustainable compared to the ones based on fossil resources (an EU-wide policy framework on biobased, biodegradable and compostable plastics is planned for mid-2022). This supports efforts on decarbonisation and creating additional opportunities for growth. As part of the Strategy, the EU adopted the Single-Use Plastic Directive (2019), targeting the top 10 single-use plastic products most often found on Europe’s beaches and seas as well as fishing gear containing plastics and the Port Reception Facilities Directive (2019), aiming to reduce the discharges from ship generated waste, including from fishing vessels.

  The European Commission is drafting a legislation to restrict microplastics intentionally added to products, e.g. in cosmetics or detergents, and has started preparatory work to reduce emissions of microplastics from other sources, such as tyres, textiles and pre-production plastic pellets taking into account inter alia initiatives like work being carried out in OSPAR Convention on pellet losses. Industry has also started the production of bio-based and biodegradable alternative materials and fibres in tyres and textiles thus supporting the substitution of materials based on fossil resources.

  Related URL:

  https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1516265440535&uri=COM:2018:28:FIN

  https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L0904&from=EN

  https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L0883

International Organisations and NGOs

Eight organisations have reported their responses with regards to our request to the G20 implementation framework survey. The responses are presented in the following sub-categories: action framework, measures & achievements, and challenges.

Eight organisations have prepared action plans (AP) to guide their MPL actions. Furthermore, five organisations have reported support for the development processes of MPL-specific indicators. Both responses indicate increased participation by organisations on marine plastic litter issues.

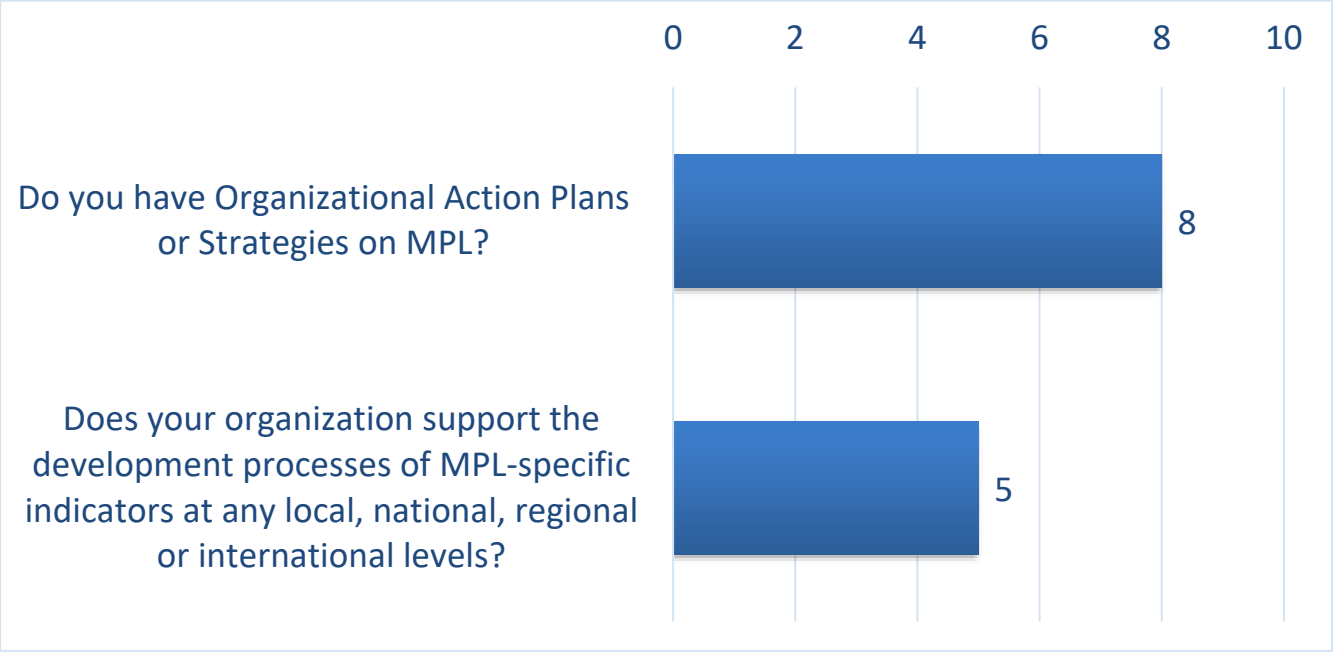

Figure 2: Organisation – Action Framework*

*Number of organisations responded YES among 8 responses

ADB

- Action Plan on Healthy Oceans and Sustainable Economies

  ADB's Action Plan on Healthy Oceans and Sustainable Economies (healthy oceans action plan) aims to increase ocean-positive investments, enhance ocean-climate action, and strengthen blue economy enabling conditions, with a commitment to catalyze $5 billion in financing and technical assistance by 2024. It will focus on four areas: (1) coastal resilience, (2) plastic-free oceans, (3) sustainable seafood, and (4) ocean finance.

  The regional technical assistance Promoting Action on Plastic Pollution from Source to Sea in Asia and the Pacific (TA 0044-REG) is part of ADB's flagship program on plastic-free oceans under the healthy oceans action plan. The project includes support initially for Indonesia, the Philippines, Thailand, and Vietnam, on inclusive and participatory processes to develop and implement action plans relevant to marine plastic litter and oceans health (at national and city level); strategy development and policy and regulatory reform to support a circular plastics economy; community demonstration projects and behavior change campaigns; the preparation of investments in solid waste management systems (focusing on 3R) and green business; knowledge sharing, capacity development and regional cooperation activities on several key themes including financing solutions, technology and innovation, market-based instruments, and green and inclusive jobs. These knowledge sharing activities will extend across Asia and the Pacific.

Ellen MacArthur Foundation

- The New Plastics Economy Global Commitment

  Launched in 2018 in partnership with the United Nations Environment Programme (UNEP), the New Plastics Economy Global Commitment has brought together key stakeholders to rethink and redesign the future of plastics, starting with packaging. It now unites more than 500 organisations, representing companies producing more than 20% of all plastic packaging globally, who work towards ambitious 2025 targets to realise a circular economy for plastic where:

  - All problematic or unnecessary plastic packaging are eliminated through redesign, innovation, and new delivery models as a priority.
  - Reuse models are applied where relevant, reducing the need for single-use packaging.
  - All plastic packaging is 100% reusable, recyclable, or compostable.
  - All plastic packaging is reused, recycled, or composted in practice.
  - The use of plastic is fully decoupled from the consumption of finite resources.
  - All plastic packaging is free of hazardous chemicals, and the health, safety, and rights of all people involved are respected.

- A growing network of national and regional Plastic Pacts spread across 5 continents, is working to put this vision into practice with solutions tailored to their local context. Signatories to the Global Commitment are reporting progress on an annual basis. All information and data from these progress reports can be accessed online here:

  https://www.ellenmacarthurfoundation.org/resources/apply/global-commitment-progress-report

- The 2021 New Plastics Economy Global Commitment progress report pointed out three key findings:
  - After decades of growth, virgin plastic use appears to have peaked for Global Commitment brands and retailers, and is set to fall faster by 2025
  - Progress has largely been driven by recycling, but that is not enough to solve plastic pollution – much more focus is urgently needed on eliminating single-use packaging
  - A large number of businesses and countries are supportive of a global agreement on plastic pollution, recognising voluntary initiatives alone will not be enough
- The next progress report will be published on 2 November 2022.

ERIA

- Regional Knowledge Centre for Marine Plastic Debris (RKC-MPD)

  With main support from Government of Japan, ERIA established the Regional Knowledge Centre of Marine Plastic Debris in October 2019 to support ASEAN+3 countries in its fight against marine plastic pollution. The goals of the Centre are:

  - Regional network creation and awareness raising
  - Promotion of innovative actions in each member country
  - Facilitation of national and regional cooperation
- Capacity development and information sharing are the two chief pillars that underpin the RKC-MPD's work. More specifically, the RKC-MPD undertakes the following activities:
  - Capacity development of governments of ASEAN countries and support for policy formulation
  - Capacity development on information administration, research, and investigation that contribute to policy formulation
  - Information sharing of ASEAN countries' initiatives at international fora
  - Information sharing to raise awareness and to promote efforts taken by private sector and citizens

  Related link: https://rkcmpd-eria.org/

IAEA

- NUclear TEChnology for Controlling Plastic Pollution (NUTEC Plastics)

  Analysis and evidence show that nuclear applications can complement existing technologies and thus accelerate the transition towards a circular economy for plastics. However, the potential contribution of nuclear science and technology for addressing the plastics waste problem has not been fully explored yet, and hence is rarely integrated into proposals for sustainable, scalable solutions. A change is needed to increase the knowledge and awareness of these techniques and technologies, but more importantly to apply them more broadly in practice in order to use the full potential of nuclear techniques' role in reducing the global plastic waste burden.

  To facilitate this the IAEA has developed NUTEC Plastics to assist its Member States in integrating nuclear techniques in their efforts to address challenges of plastic pollution. The IAEA supports research and application of nuclear techniques in two main areas: monitoring and assessment of marine plastics and reduction of plastic/polymer waste volumes by enhancing plastic recycling and production of sustainable alternatives to petroleum-based plastics, both through the application of radiation techniques.

  Radiation technology for industrial purposes, such as gamma and electron beams, offers unique advantages for reducing plastic and polymer waste and therefore fill existing technological gaps in dealing with such waste. Irradiation can address sorting challenges experienced by mainstream mechanical recycling methods by enabling effective sorting of plastic wastes to feed into recycling streams, thus improving the quality and value of the recycled plastics. Radiation technologies can also be used to transform or recycle plastic waste into other products, such as fillers and binders for construction materials. They can also be used to break down or convert waste plastic polymers into fuel or smaller components to generate chemical feedstocks to produce consumer products, with or without the addition of virgin polymers. Reduction of plastic waste is also possible through replacing petroleum-based plastics with biodegradable bio-based products obtained by radiation-driven processes. Furthermore, radiation technology offers cleaner production and recycling processes thus reducing the use of potentially harmful additives and solvents as well as delivering energy savings.

  NUTEC Plastics will integrate radiation technologies for plastic waste recycling into national, regional and global initiatives. Ongoing laboratory-scale activities are paving the way for pilot plastic recycling plants to establish the volume, energy and financial balances associated with using radiation technologies to recycling various plastic wastes. Based on the proof of principle and experience gained from the piloting, the technology will be scaled-up to a large-scale plastic waste recycling demonstration plant(s).

  Ocean is the final repository of mismanaged and unrecycled land-based plastics, and there is a lack of sufficient knowledge and understanding of the abundance and impact of microplastics in the ocean. More accurate data are needed to assess the effect that microplastics and associated contaminants have on marine organisms that are part of the global food chain, such as food for human consumption, and therefore on seafood exports, food safety and human health. Isotopic techniques offer unparalleled precision and complement conventional techniques in tracking the abundance and distribution of nano- and micro-plastics in the marine environment. Isotopic tracers, imaging techniques and gamma and beta counters provide unique information that helps to assess the impacts of micro- and nano-plastics on marine biota. These techniques provide important markers for studying the fate of plastics on living organisms, to reveal in detail the impacted organs and systems, and allow to trace the actual toxicological stress and their possible propagation in food chains that can ultimately impact humans through consumption of seafood.

  NUTEC Plastics will strengthen and scale-up the development of reliable and cost-effective techniques to assess the spatial and temporal abundance and character of marine plastics to better understand their origin, transport mechanisms, as well as fate and impact. This includes the establishment of harmonized, standardized protocols to identify microplastics in environmental samples, analytical techniques that are in line with best practices and state-of-the-art science, and training for scientists and technicians in their use.

  A holistic and sustainable solution to the global plastic burden requires an integrated and comprehensive approach that can only be achieved in partnership with organizations that have complementary roles and expertise. Working within existing national, regional and international initiatives, including private-public partnerships is essential. This includes collaboration with United Nation entities, multilateral development banks, philanthropies, existing large-scale initiatives and multi-stakeholder platforms, private sector, and scientific and research institutions. The private sector will be a critically important partner in making the transition to a circular plastic economy, underpinned by strong governmental action and ownership through enabling policies and supportive legal environment.

  NUTEC Plastics' two main components – monitoring and assessment and plastic recycling — are logically intertwined as both contribute to the solution of the global plastic pollution problem. However, their implementation is not contingent on each other and therefore NUTEC Plastics adopts a modular approach. This approach offers the advantage of facilitating the implementation of certain activities according to resource availability, while offering Member States and partners the opportunity to engage in activities linked to their profile, preferences and priorities.

UNDP

- UNDP Plastics Offer

  The UNDP Plastic offer takes a whole-of-society approach to address plastic pollution along its entire value chain. The offer is centered around the principles of think global, advocate national and act local. UNDP plastics programming focuses on integrated plastic waste, ecosystem and climate solutions for urgent, transformative action. Signature programs under the Plastics Offer include: 1) Cities: an integrated approach to transforming municipal solid waste management and business models; 2) Islands: a community-to -cabinet approach to make zero plastic waste islands a reality; 3) Oceans: a holistic source-to-sea approach to stop marine plastic pollution at its source; 4) Humans: a targeted advocacy and education approach to shift minds and behaviors towards sustainability. To support UNDP's actions worldwide, the Plastics Offer's service lines include: 1) Integrated policy platform; 2) Behavior change lab; 3) Innovation incubator; 4) Local to global knowledge hub; 5) Financing; and contributes to UNDP's zero waste vision. UNDP's Plastic Offer sets three key targets for 2030: 1) 100 countries with improved plastics regulation and implementation; 2) 100 cities and islands with effective plastic waste management plans and use reduction strategies; 3) 100 million people mobilized to take action on plastic pollution.

- UNDP Ocean Innovation Challenge

  The Ocean Innovation Challenge (OIC), launched in 2017 with catalytic funding from the government of Sweden (Sida) and Norway (Norad), is a unique mechanism that has been designed to accelerate progress on SDG14: Life below water by identifying, financing, advising and mentoring truly innovative, entrepreneurial and creative approaches to ocean and coastal restoration and protection that sustains livelihoods and advances the 'blue economy'. The OIC seeks and supports innovations that are transferable, replicable and scalable in order to achieve maximum catalytic impact. There are three rounds/calls for proposals to a wave wherein three waves are planned in order to reach the goal outlined in the Ocean Promise of supporting 100 innovations by 2030. The first call focuses on SDG 14.1 Marine pollution reduction. Eight innovators were selected out of more than 600 applicants and were launched for implementation in March 2021. Among the eight ocean innovators, six are addressing marine plastic pollution reduction both on the upstream and downstream level through regulatory and policy enhancements, Extended Producer Responsibility (EPR) schemes, buyback centres, cutting-edge research on microfibre shedding and microplastics release prevention at the textile manufacturing stage, and alternatives to polystyrene with biodegradeable alternatives. UNDP is providing financial support up to a maximum of $250,000 per innovation and 2-year incubation.

UNEP

- UNEP's Medium Term Strategy (2022-2025)

  UNEP's Medium Term Strategy (2022-2025) has elements targeting plastic pollution, which has been included in the 3rd information sharing report, https://g20mpl.org/wp-content/uploads/2021/07/G20MPL-report-2021_final-edition1119.pdf (page 39).

  In addition, At the resumed fifth session of the UN Environment Assembly (UNEA) in February 2022, Member States adopted a historic resolution (UNEP/EA.5/Res.14) to end plastic pollution and forge an international legally binding instrument by 2024.

UNIDO

- Addressing the challenge of Marine Plastic Litter using Circular Economy methods

  UNIDO's approach to address the challenge of marine plastic litter focuses on supporting Member States to promote circular economy practices in industry and society through policy suggestions, strengthening capacity in industry, including technical cooperation and technology transfer, and awareness development.

  Circular economy practices in the plastics value chain could aim at designing out waste to retain plastics within the economy; regaining the value embodied in plastics that leaked out of the economy as waste; and continuing efforts for recovering plastics already in oceans, in particular in services, on beaches, ports and coastal waters to consider on the way to a circular plastics economy and an end to the global marine plastic litter challenge.

  Especially, in the product design stage, the following might be considered: a) scrutinizing the necessity of packaging altogether, including of plastics, b) selection of renewable, bio-degradable and compostable materials and additives that are not or less toxic for essential plastic packaging or single-use plastic products; c) designing for less material use to decrease waste; d) designing packaging and products that use a single or small number of polymers that are easy to separate during recycling.

  Policy measures to incentivize circular economy practices in design could consist of supporting implementation of innovations in design of existing and new products, and support to innovations and start-ups in particular those related to new, biodegradable and compostable plastics. A number of initiatives could trigger both supply side motivation for circular product designs and preference for such products on the demand side, such as; measures for creating markets for recycled plastics and improving markets for bio-based plastics; differentiated taxes on virgin and recycled plastics; introduction of standards for recycled content; improving information on recycled content in products in combination with educational campaigns for consumers. Furthermore, support for development of effective infrastructure for collection and separation of waste streams and empowering local authorities with sufficient financial and technical resources could induce product designs for ease of recyclability. In developing countries, taking measures to include informal

collection, separation and recycling operations and improving working conditions for the informal workforce could be one of the objectives to safeguard livelihoods and ensure a just transition.

For more information, please check:

https://www.unido.org/sites/default/files/files/2019-06/UNIDO_Addressing_the_challenge_of_Marine_Plastic_Litter_Using_Circular_Economy_0.pdf

WEF GPAP

- Global Plastic Action Partnership

The Global Plastic Action Partnership (GPAP), hosted at the World Economic Forum, was created by a coalition of public and private sector leaders to address the worldwide explosion in plastic pollution. It aims to shape a more sustainable and inclusive world by eradicating that pollution. Through its inclusive multistakeholder platforms, GPAP is uniquely equipped to bring public, private and civil society leaders together to develop joint solutions to the plastic pollution crisis that are both pragmatic and ambitious. GPAP operates in three key ways:

- Convening communities and curating conversations
- Generating new insights and action roadmaps
- Catalysing coordinated action to scale-up solutions.

Since its inception in 2019, GPAP has launched National Plastic Action Partnerships in Indonesia, Ghana, Viet Nam and Nigeria. It prioritizes six cross-cutting impact areas: Boosting innovation; transforming behavior; harmonizing metrics; informing policy; unlocking financing; and promoting inclusivity.

2.2. Legal Framework

Countries

Australia

- Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

  The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) lists injury and fatality to vetebrate marine life caused by ingestion of, or entanglement in, harmful marine debris as a key threatening process.

  Australia's Threat Abatement Plan for the impacts of marine debris on the vertebrate wildlife of Australia's coasts and oceans incorporates actions needed to abate the listed key threatening process. The threat abatement plan includes a range of management approaches for research and monitoring, public outreach and education, preventing and reducing debris from land-based sources as well as addressing marine-based sources and removing accumulated marine debris from the coastal marine environment.

- Recycling and Waste Reduction Act 2020 (RAWR Act)

  In 2020, the Australian Government introduced landmark legislation to ensure Australia takes responsibility for its waste. The RAWR Act provides a national framework to manage waste and recycling across Australia, now and into the future. It implements the export ban on waste plastic, paper, glass, and tyres that was agreed by the Commonwealth, state, and territory governments in March 2020.

  The Act and its supporting Rules provides for voluntary, co-regulatory and mandatory product stewardship schemes, to encourage companies to take greater responsibility for the waste they generate, including through better product design and the increased recovery and reuse of waste materials. It also requires the Minister to publish a Product Stewardship Priority List each year which lists products that might warrant regulation if other approaches are not suitably adopted.

- Recycling and Waste Reduction (Export—Waste Plastic) Rules 2021 (Waste Plastic Rules)

  The Waste Plastic Rules under the RAWR Act implement the ban on export of unprocessed waste plastic in two phases, through a licensing and declaration scheme.

  Phase 1 of the export ban was in place from 1 July 2021 until 30 June 2022. This required licence holders to sort plastic into a single polymer or resin prior to export for further processing, recycling, and re-manufacture.

  On 1 July 2022, phase 2 of the export ban commenced. This requires licence holders to further process sorted waste in Australia prior to export, for example into flakes or pellets.

  The Waste Plastic Rules will help ensure that Australia takes responsibility for its plastic waste and promote the development of our domestic recycling sector and circular economy. By ensuring we only export properly processed waste, we are preventing these materials from being dumped overseas, reducing harm to the environment and human health.

- Hazardous Waste (Regulation of Exports and Imports) Act 1989 (Hazardous Waste Act)

  Australia is a signatory to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basal Convention) and implements its obligations through the Hazardous Waste Act.

  The Basel Convention was amended from 1 January 2021 to enhance controls on exports, imports and transboundary movement of waste plastics, so that impacts on human health and the environment are minimised. The amendments introduce a broad category of waste plastics that will be subject to prior informed consent procedures, with certain exceptions.

  The Hazardous Waste Act was amended in 2021 to incorporate the Basel Convention plastic amendments into Australian law. The Hazardous Waste Act operates in tandem with the RAWR Act to ensure the optimal environmental outcome in relation to waste plastics.

- National Environment Protection (Used Packaging Materials) Measure 2011

  The Australian Government partners with state and territories governments and industry to reduce the environmental impacts of packaging, including plastic packaging, through the Australian Packaging Covenant (Covenant). The Covenant is underpinned by the National Environment Protection (Used Packaging Materials) Measure 2011.

  The Australian Government is working with the states and territories and industry to review and reform the co-regulatory packaging system to increase sustainable packaging design and recyclability and integrate with Australia's packaging product stewardship and circular economy initatives.

  The review presents an opportunity to strengthen the domestic regulatory framework and improve the way packaging is designed, manufactured, collected, recycled, and reused. Increasing the effectiveness of the packaging framework will have consequences for marine plastic litter by increasing product sustainability and plastic collection and recycling.

Brazil

- Ministerial Ordinance No. 209, March 22nd, 2019, that approves the National Plan to Combat Marine Litter

  It aims to reduce the impacts of marine litter (including plastic) on coastal and marine ecosystems and to improve life quality of Brazilian citizens.

  Moreover, there is a comprehensive legal framework supporting this National Plan:

- Brazil is Party to the following international conventions:
  - London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LC-72) – Decree No. 87,566/1982;
  - United Nations Convention on the Law of the Sea (UNCLOS) - Decree No. 99,165/1990;
  - Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal – Decree No. 875/1993.
  - MARPOL (International Convention for the Prevention of Pollution from Ships) - Decree No. 2,508/1998;

The main legal national instruments are:

- Environment National Policy Law – Federal Law No. 6,938/1981.
- National Solid Waste Management Policy – Federal Law No. 12,305/2010. According to this law, it is forbidden to discharge any kind of debris in beaches, sea or any other water bodies.
- Federal Law No. 14,026/2020, updates the legal framework for basic sanitation. This law establishes as one of its principles that the provision of water supply, sewage disposal, urban cleaning and solid waste management services must consider public health, conservation of natural resources and protection of the environment.
- Environmental Crimes Law – Federal Law No. 9,605/2008 - This law considers it an environmental crime to either dispose of any kind of oil substances at odds with such law or to dispose of any kind of debris at beaches, at sea or in any other water resources.
- Decree No. 10,936/2022, regulates the National Solid Waste Management Policy – (Law No. 12,305/2010).
- Decree No. 11,043/2022, approves the National Plan to Solid Waste Management.
- Decree No. 11,044/2022, establishes the Recycling Credit Certificate Program ("Recycle+").
- National Environmental Council (Conama) Resolution No. 454/2012, establishes general guidelines and referential procedures for the management of the material to be dredged in waters under national jurisdiction and its final disposition.
- Ministry of the Environment Ordinance No. 307/2019 - Zero Waste Dumpsite Program which is the main program of the Brazilian urban environmental agenda.
- Ministry of the Environment Ordinance No. 439/2021 – Cleaner Rivers Program, which encourages actions that promote depollution of rivers and water quality improvement.
- Normative Instruction MPA-MMA No. 12/2012, requires the identification of marine gillnet and trammel net fisheries.

Canada

- Canadian Environmental Protection Act, 1999
- Microbeads in Toiletries Regulations
- Single-use Plastics Prohibition Regulations

The Government of Canada has authorities under the Canadian Environmental Protection Act, 1999 (CEPA), to enact regulations and other risk management tools to change behaviour at key stages in the lifecycle of plastic products and create the conditions for achieving a circular plastics economy.

Under CEPA, in June 2022, Canada published the Single-use Plastics Prohibition Regulations as part of its plan to reduce plastic waste and pollution. The regulations prohibit the manufacture, import and sale of single-use plastic checkout bags, cutlery, foodservice ware made from hard-to-recycle plastics, stir sticks, ring carriers and straws (with exceptions made under certain conditions to ensure people who need single-use plastic flexible straws maintain access to them). This complements Canada's Microbeads in Toiletries Regulations that prohibit the manufacture, import and sale of certain toiletries, such as bath and body products, skin cleansers and toothpaste, as well as non-prescription drugs and natural health products that contain plastic microbeads.

On February 11, 2022 a Notice of Intent and Technical issues paper was published in the Canada Gazette, Part I, to inform, and seek early feedback from, interested parties on the development of regulations, under CEPA, to require minimum recycled content in certain plastic manufactured items.

In 2022, the Government will begin to consult on approaches to a federal public plastics registry and the development of labelling rules that would prevent the use of the chasing arrows symbol on plastic items unless at least 80 percent of recycling facilities in Canada accept them and they have reliable end markets. In addition, Canada will work towards addressing biodegradability, degradability, and compostability claims for plastic products.

Additional complementary acts, regulations and agreements contribute to the prevention of marine litter, including plastic pollution. For instance, CEPA and the Canada Shipping Act prohibit the discharge or disposal of litter in Canadian waters. The Fisheries Act prohibits the deposit of deleterious substances into domestic waters frequented by fish and prohibits serious harm to fish and fish habitat. The Species at Risk Act provides for the protection of critical habitat for listed species, including the marine environment for aquatic species at risk. Canada implements the requirements of the Basel Convention, including the new plastic waste amendments, through its Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations. A Canadian exporter must seek a permit before exporting hazardous waste to another country.

As a global actor, Canada implements its obligations under several legally-binding international agreements that contribute to preventing waste and litter, including the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the International Convention for the Prevention of Pollution from Ships (MARPOL), and the London Convention and Protocol to prevent marine pollution by dumping at sea. Canada has also adopted other international frameworks for action, such as the Ocean Plastics Charter, G7 Action Plan to Combat Marine Litter, G20 Action Plan on Marine Litter and Implementation Framework, International Maritime Organization Action Plan to Address Marine Litter from Ships, and plastics-related United Nations Environment Assembly resolutions.

Currently, Canada is working with its partners to develop a new legally-binding instrument on plastic pollution that takes into account the lifecycle of plastics.

Chile

- Since 2016 Chile has an Extended Producer Responsibility Law (EPR). In Mars of this year, the regulation on EPR for packaging was adopted. Additionally, a law which prohibits the delivery of plastic bags by commerce was adopted in 2018, while a law which regulates single used plastics has been adopted in 2021.
- In 2021 Chile adopted a roadmap for a circular Chile by 2040. Chile has created a long-term circular economy roadmap through a broad participatory development process that involved over 100 stakeholders from the public and private sectors, NGOs, academia, and citizens. The roadmap sets out a long-term vision and shared action plan, bridging traditional silos and exemplifying Goal 5 of the Universal Circular Economy Policy Goals: Collaborate for systems change. The vision of a regenerative, fair and participatory circular economy in Chile is supported by goals to create jobs, reduce waste, increase recycling and material productivity, and recover illegal dump sites.
- In 2021 Chile adopted Supreme Decree No. 64/2020, which establishes conditions for the treatment and final disposal of waste from aquaculture activities and which, for example, prohibits the use of expanded polystyrene as a flotation element.

China

- Law of the People’s Republic of China on Prevention and Control of Environmental Pollution by Solid Wastes (2020 Amendment)

  The Law on Prevention and Control of Environmental Pollution by Solid Waste was amended to identify the responsibilities of competent departments and local governments, improve the system for the prevention and control of solid waste pollution, and strengthen the supervision and implementation of such responsibilities.

- Marine Environment Protection Law of the People's Republic of China (2017 Amendment)

  The Marine Environment Protection Law of the People’s Republic of China is formulated for the purposes of protecting and improving the marine environment, conserving marine resources, preventing damages caused by pollution, maintaining ecological balance, safeguarding human health and promoting sustainable economic and social development.

- Circular Economy Promotion Law of the People's Republic of China (2018 Amendment)

  The Circular Economy Promotion Law of the People's Republic of China is formulated for the purpose of facilitating circular economy, raising resources utilization rate, protecting and improving environment and realizing sustained development. The Law aims to achieve sustainable development by raising resource utilization rate and increasing resource recovery in production, circulation, and consumption.

Colombia

- Law No. 1672: Establishes the guidelines for the adoption of a public policy for the integrated management of waste electrical and electronic equipment (WEEE)

  WEEE is waste of differentiated management that must be managed in accordance with the guidelines established for this purpose by the Ministry of Environment and Sustainable Development

- General Environmental Law: Establishes retributive and compensatory rates for introducing or dumping waste directly or indirectly into the atmosphere, water and soil
- National Sanitary Code: Establishes the sanitary norms related to human health and the procedures and measures to be adopted for the regulation, legalization and control of waste and material discharges that affect or may affect the sanitary conditions of the environment
- Law 430 of 1997: Dictates the prohibitive norms and environmental responsibility, regarding hazardous wastes
- Law 1252 of 2008: Whereby prohibitive norms are dictated in environmental matters, referring to residues and hazardous wastes and other provisions are dictated
- Decree 1713 of 2002: Establishes rules aimed at regulating the public sanitation service within the framework of the comprehensive management of ordinary solid waste, in matters relating to its components, levels, classes, modalities, quality, and the regime of service providers and users
- Decree 2198 of 2017: “Whereby the heading of Part 5 of Book 1 is modified and Title 6 is added to Part 5 of Book 1 of Decree 1625 of 2016 Sole Regulatory Decree on Tax Matters, to regulate paragraph 1 of article 512-15 and numerals 3 and 4 of article 512-16 of the Tax Statute", issued by the Ministries of Finance and Public Credit, and Environment and Sustainable Development, in order to regulate the requirements to apply the differential rates of the tax on plastic bags that offer environmental solutions, as well as the conditions for the non-causation of the national consumption tax on plastic bags

- Resolution 0668 of 2016: "Whereby the rational use of plastic bags is regulated and other provisions are adopted"

  It establishes in charge of the distributors of plastic bags referred to in the regulation, the obligation to formulate, implement and keep updated a program of rational use of plastic bags, distributed at the points of payment throughout the national territory

- Resolution 1407 of July 26, 2018: "Whereby the environmental management of paper, cardboard, plastic, glass, metal containers and packaging waste is regulated and other determinations are made", in accordance with its objective establishes producers the obligation to formulate, implement and keep updated an environmental management plan for containers and packaging waste, which promotes the use

- The aforementioned Resolution provides that producers with national coverage must, as from 2022, extend the coverage of the environmental management plans for packaging waste to the Archipelago Department of San Andres, Providencia and Santa Catalina

- Resolution 1342 of 2020, which modifies Resolution 1407 of 2018, with which the initially established definitions are expanded; new obligations are established to some of the relevant actors in the management of packaging waste and the respective annexes of the resolution are modified.

- Issuance of Resolution 1558 of 2019 "Whereby the entry of single-use plastics is prohibited in the areas of the Colombian National Natural Parks system and other provisions are adopted." Specifically in areas with ecotourism vocation, with the exception of plastics intended for medical purposes and uses, for reasons of asepsis and hygiene

- By means of Law 1973 of 2019 "Whereby the entry, commercialization and use of bags and other plastic materials is regulated and prohibited in the Archipelago Department of San Andrés, Providencia and Santa Catalina and minor islands that compose it" with the objective of reducing the environmental impact produced by the entry, commercialization and use of plastic materials in the department

- Decree 317 of 2021 of the Mayor's Office of Bogota D.C., regulates the District Agreement No. 808 of 2021 and establishes measures to progressively reduce the acquisition and consumption of single-use plastics in the entities of the Capital District

- Resolution 295 of December 01, 2021 of the National Authority of Aquaculture and Fisheries-AUNAP: "Whereby the final disposition of regulatory and non-regulatory fishing gear and equipment is established"

Costa Rica

- Costa Rica has an innovative, proactive and disruptive waste legislation since 2010, called Integral Residues Management Law No.8839. Along with it, there are several executive decrees, which establish the regulations on ordinary residues (Executive Decree No. 36093-S), special waste (Executive Decree No. 38272-S) and hazardous waste (Executive Decree No. 41527-S-MINAE).

  Law 8839 does not differentiate on the different types of residues and sources of waste generation, and it does not specify the marine environment. Hence, the need to generate a specific legal instrument related to marine litter arises and the formulation of the National Marine Residues Plan happens.

Fiji

- Environment Management Act 2005
- Environment Management (Amendment) Act 2020 [Section 45 B)
- Environment Management (Exempt Plastic Bags) Regulations 2021
- Customs (Prohibited Imports and Exports) (Amendment) Regulations 2012
- Customs (Prohibited Imports and Exports) (Amendment) Regulations 2021 & 2022
- Environment Management (Waste Disposal and Recycling) Regulations 2007
- Litter Act 2008
- Litter (Amendment) Act 2010

  The above Acts and Regulations provide legal frameworks to address and combat issues of MPL. These legislations enable the Ministry of Environment to regulate the use, import/export, manufacture, distributions and retail of single use plastic bags, other plastics and Styrofoam. Through these legislations issues of littering and waste management by individuals and facilities are also addressed and regulated. The Ministry of Environments' internal policy such as the "7R" (Reduce, Rethink, Refuse, Reuse, Repurpose/Repair, Recycling and Recover) help manage waste and enhance circular economy.

France

- The legislation for energy transition for green growth (2015)

  The legislation for energy transition for green growth (2015) set up the prohibition of non-compostable plastic bags for 2017 and progressively extended recycling to all plastic packaging by 2022.

- The legislation for Reclaiming biodiversity, nature and landscapes law (2016)

  The legislation for Reclaiming biodiversity, nature and landscapes law (2016) has set up a ban for microbeads in cosmetics for 2018 and a ban for cotton-buds in 2020.

- The legislation for trade relations balance in the agricultural sector and healthy and sustainable diet (EGAlim, 2018)

  The legislation for trade relations balance in the agricultural sector and healthy and sustainable diet (EGAlim, 2018) has planned a ban on plastic stirrers and straws in 2020, and a ban of food containers in collective catering for 2025.

- The legislation against waste and for a circular economy (2020)

  The legislation against waste and for a circular economy (2020) has defined a goal of zero single-use plastic by 2040, with targets for deposits, recycling and reuse. This law is notably based on the principle of extended producer responsibility, according to which producers are responsible for financing or organizing the prevention management and clean-up of waste from their products.

- "3R" Decree for reduction, reuse and recycling of single use plastic packaging for 2021-2025 period

  This executive decree has been adopted in April 2021 in the context of the legislation against waste and for a circular economy, it defines 3R objectives for single-use plastic packaging for the period 2021-2025 which are: reduce, reuse and recycle.

Germany

- Kreislaufwirtschaftsgesetz KrWG
- Wasserhaushaltsgesetz (WHG)

  i.a. implementation of EU MSFD

- Hohe-See-Einbringungsgesetz (HSEG)

  i.a. implementation of LC/LP

Indonesia

- Presidential Regulation No. 83/2018 concerning Handling Marine Litter

  The legislation is regulated a collaborative action plan that involved 16-line ministries to reduce MPL by 70% in 2025 using 2018 baseline. The action plan consists of 5 strategies and 56 activities that should be implemented by related ministries in the period of 2018-2025.

Italy

- 2015. National legislative measure to reduce the improper discarding of small and microwaste (receipts, chewingum, tissues, cigarette butts, etc.) in the environment. In particular, municipalities shall install special containers for the collection of cigarette butts in the streets, in parks and high social gathering places. Tobacco producers shall implement information campaigns, in collaboration with the Ministry of Environment, Land and Sea, with the aim to raise consumer awareness about the harmful consequences for the environment resulting from the littering of cigarette butts
- 2018. National legislative measure: ban light and ultralight shopping plastic bags that are not biodegradable and compostable.
- 2018. National legislative measure: ban of microplastics in soaps, creams, toothpastes.
- 2019. National legislative measure: ban of plastic cotton buds sticks
- 2020. Italy joined the European Plastic Pact (EPP) (https://europeanplasticspact.org/signatories/)
- 2021. Transposition of DIRECTIVE 2019/904/EC on the reduction of the impact of certain plastic products on the environment. D.Lgs 196/2021.
- 2021. Updated Programme of measures according to Article 13 of the MSFD:
  - Design and implementation of measures to improve the management of litter generated by fishing and aquaculture activities, including discarded equipment, favoring, where possible, its reuse, recycling and recovery.
  - Implementation of training and awareness measures to increase knowledge and promote the education of the public and economic operators to prevent and combat marine litter.
  - Study, design and creation of a collection and disposal chain for litter collected accidentally by fishermen: "Preparation of a regulatory tool for the implementation of a collection and disposal chai n for litter accidentally collected by fishermen, in implementation of Directive 883/2019".
  - Study, design and creation of a supply chain for fish boxes to facilitate the transition from the use of disposable polystyrene boxes to washable and reusable ones.
  - Establishment of an inter-ministerial, multidisciplinary technical panel of experts on the subject of sea floor litter that includes representatives of the competent ministries for DCF and MSFD and national experts. The purpose of the technical panel is to contribute with its expertise to the building of a thorough and multidisciplinary knowledge framework by systematizing the information and data available in order to identify the most suitable measures to combat the impacts of waste on the seafloor.
  - Measure concerning the application of the new Directive 904/2019 regarding the creation of EPR (Extended Producer Responsibility) systems: preparation of a Ministerial Decree for the creation of EPR systems for the products referred to Article 8 of Directive 9 04/2019 and of Annex PART E section 1, as well as of mussel farming nets, for the correct management of the end of life of fishing and aquaculture equipment.
  - Evaluation of tools for the reduction of litter from river sources also through the use of experimental sustainable prototypes for their interception.
  - Study, design and creation of the marine litter recycling chain.
  - Design and testing of experimental prototypes for the removal of microplastics by wastewater treatment plants.
  - Identification and verification of functional tools for the geolocalization of fishing gears that exert high negative impacts on ecosystems as a result of loss at sea (e.g. monofilament gillnets and triplets; pots), also through the use of experimental prototypes.

- 2022 - Law. 60/2022. SALVAMARE. Provision for the recovery of litter at sea and in inland waters and for the promotion of the circular economy.

Japan

- Waste Management and Public Cleansing Act

  Legislation to protect living environments and improve public health through waste generation control and appropriate waste treatment. Under the Waste Management and Public Cleansing Act, municipalities are obliged to formulate a basic waste management plan. In accordance with the national policy, the plan formulated by municipalities is required to show specific methods and target figures, such as “reduction of emissions per capita”, “recovery rate of resources from waste”, and “reduction of waste for final disposal”, as well as target values for cost efficiency of waste treatment.

- Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging

  The volume of containers and package is now approximately 60% of the total municipal solid waste. This Act was enforced in 1997 in order to promote efficient use of recycled containers and packages generated and reduction of wastes by shifting those wastes into recyclable resources.

- Act on Promotion of Resource Circulation for Plastics

  This Act, enforced in 2022, involves all stakeholders including municipalities, businesses and consumers to promote “3R + Renewable” in each stage of the lifecycle, from product design to waste disposal, of plastic products. This includes (i) the Guideline for Design of Plastic-containing Products, (ii) Rationalizing use of “specified plastic-containing products”, (iii) Accelerating sorted collection and recycling of plastics by municipalities, manufacturers, retailers, and businesses.

  Details can be found here: https://www.gov-online.go.jp/eng/publicity/book/hlj/html/202205/202205_09_en.html

- Law Concerning Special Measures for Conservation of the Environment of the Seto Inland Sea

  In addition to the measures to remove and reduce marine plastic litter, revision was made recently to clarify the importance of emissions reduction.

Mexico

- Basel Convention, Stockholm Convention, Marpol Convention (Annex V) and Mexican Official Standard

- National Legislation:
  - Law of Discharges in the Mexican Marine Zones.
  - General Law for the Prevention and Integral Management of Waste.
  - Law of Navigation and Maritime Commerce.
  - Regulation of the General Law for the Prevention and Integral Management of Waste.
  - Regulation of the Law of Navigation and Maritime Commerce.
  - Mexican Norm NMX-AA-120-SCFI-2016 “Requirements and specifications for beach quality sustainability”
  - National Program for the Prevention and Integral Management of Waste.
  - Prevention and sound waste management Law and Regulation

  On June 6, 1990 the approval of the Basel Convention on the control of transboundary movements of hazardous waste and its disposal were published in the Official Gazette of the Federation (DOF). This Convention aims to ensure the environmental management of hazardous waste by promoting international cooperation.

  On December 1st, 2021 this Convention was amended in compliance with trade policies implemented by several countries to restrict the introduction of plastic waste. And on May 17th, 2004 the Stockholm Convention on Persistent Organic Pollutants (POPs) was published on the Mexican DOF whose purpose is to protect human health and the environment from POPs, toxic chemical compounds as pesticides, insecticides, among others.

  Besides, Mexico is part of the International Convention to Prevent Pollution from Ships (MARPOL) which was published on the DOF on January 28, 1992. This Agreement establishes the Rules to prevent pollution caused by garbage on ships.

  At the same time, it has been established some standards in the Mexican ports to comply with the provisions of the Official Mexican Standards (NOM161-SEMARNAT-2011) which establishes the criteria for classifying Special Management Waste and determining which ones are subject to a Management Plan, the procedure for the inclusion or exclusion, as well as the elements and procedures for the formulation of management plans.

  Considering that lost and abandoned fishing nets are a fundamental form of plastic marine debris, both in terms of quantity and impact on marine ecosystems and life, on November 2020 Mexico formally became a member of the Global Ghost Net Initiative, which is the first of its kind dedicated to addressing the problems of ghost nets on a global scale.

  The Prevention and sound waste management Law and Regulation considers the prevention and minimization of the generation of waste, its release into the environment, and its transfer from one environment to another, as well as its comprehensive management to avoid health risks and damage to Ecosystems.

Myanmar

- Environmental Conservation Law (2012)

  Chapter VIII Management of Urban Environment include management of wastes and pollution control.

- Environmental Conservation Rules (2014)

  In Chapter (IX) Waste Management, the Ministry shall carry out waste treatment by the categories of business which emit or produce solid wastes, liquid wastes, emissions, radiations which contain poisonous and hazardous materials by establishing their own facility/centre, or collective facility/centre.

Nepal

- National Environmental Policy, 2019
- Environment Protection Act, 2019
- Environment Protection Rules, 2020
- Solid Waste Management Act, 2011
- Solid Waste Management Rules, 2013
- National Solid Waste Management Policy, 2022

  Deal with solid waste management and environmental conservation.

Netherlands

- There are various legal frameworks that deal with plastics.

  The EU Marine Strategy Framework Directive aims to protect more effectively the marine environment across Europe. This is the legal framework for the national Program of Measures.

  Existing regulation focusses on effective waste management (EU Waste Framework Directive), packaging (EU packaging and packaging waste directive, national EPR schemes) and plastic bags (EU plastic bag directive). In 2021 the implementation of the Single Use Plastics directive will be added to this.

Norway

- The Pollution Control Act

  https://www.regjeringen.no/en/dokumenter/pollution-control-act/id171893/

  Norway has a very comprehensive policy framework regulating waste through the Pollution Control Act and the detailed Waste Regulations (https://www.regjeringen.no/en/dokumenter/waste-regulations/id512073/). Littering, is illegal according to the Pollution Control Act. As part of the European Economic Area Norway is bound by European rules and regulations, including targets relevant to this issue.. Regulation on Delivery and receipt of waste and cargo residues from ships/PRF Directive (2002/59/EC), is implemented/incorporated into the Norwegian pollution regulation, chapter 20. Public consultations on the implementation of the revised EU PRF Directive (2019/883) has been conducted, and the revised regulation is now under consideration in the Ministry.

- The Product Regulations chapter 2b regulates single-use plastics.

  The regulation bans certain single-use plastic items. There is also marking requirements for some products. This implement important parts of the EU Plastics Directive in Norwegian law.

  The purpose of the regulation is to reduce the environmental impact of single use plastic products.

- The Marine Resources Act

  The Marine Resources Act which regulates fisheries, forbids dumping of fishing gear. If fishing gear is lost or has to be cut, it is an obligation to try to recover it and if this is unsuccessful, to report the loss.

  https://www.regjeringen.no/no/dokumenter/Marine-Resources-Act/id612258/

- The Product Control Act

  The Product Control Act regulates products from causing environmental disturbance, and damage to health, as well as national provisions for eco-design. Further regulations pertaining to different sources of microplastics emissions will be considered into the existing Norwegian legal framework.

  https://www.regjeringen.no/en/dokumenter/product-control-act/id172150/

- The Ship Safety and Security Act

  The Ship Safety and Security Act shall safeguard life, health, property and the environment by facilitating a high level of ship safety and safety management, including preventing pollution from ships.

  https://www.sdir.no/en/shipping/legislation/laws/ship-safety-and-security-act/

- The Harbour and Fairways Act

  Vessels provide the Norwegian authorities and ports with the information required to enhance safety, the environment and efficient maritime transport. Authority to demand removal of shipwrecks. The Act was updated/revised in 2019, but the translation available reflects the Act prior to revision: regulation-on-vessels-notification-obligations-under-the-harbour-and-fairways-act-1.pdf (kystverket.no)

  https://www.kystverket.no/globalassets/ohm-regelverk/engelsk/regulation-on-vessels-notification-obligations-under-the-harbour-and-fairways-act-1.pdf

- Waste Regulation

  https://www.regjeringen.no/en/dokumenter/waste-regulations/id512073/)

  The Waste Regulation implement among others of the EU Waste framework directive in Norwegian Law. The regulation includes provisions on waste management that are relevant for preventing discharge of plastic litter into the environment.

- Norway adopted in May 2022 a new chapter 10A in the Waste regulations chapter 10A establishes mandatory sorting of biological waste and plastic waste (including plastic packaging and agricultural plastics) from municipal waste. The regulations will enter into force 1 January 2023. This regulation requires municipalities to sort at least 70 % of plastic waste from households by 2035.

- Norway has also adopted new regulations to implement the targets for recycling in the EU directive on packaging and packaging waste in the waste regulations chapter 6 and 7, that entered into force in May 2022. These changes mean that the amount of plastic packaging waste recycled must increase to 50 % by 2025 and to 55 % by 2030.

- The regulations relating to pollution control

  https://www.regjeringen.no/en/dokumenter/pollution-regulations/id512074/

  The regulations relating to pollution control chapter 32A establishes requirements for the design and operation of sports pitches that use loose microplastic as infill materials. These regulations entered into force on 1 July 2021. When all regulation measures are implemented, microplastic emissions from artificial turf pitches will be reduced by up to 90 %.

Oman

- Oman had issued many resolutions as bellow:
  - Resolution 17/93 for management of solid non-hazardous waste
  - Resolution 18/93 for management of hazardous waste
  - Decision No.15/2021 to regulate the export of waste

  In addition to that Oman followed the Basal Convention for proper waste management.

Peru

- Legislative Decree N°1278 "Solid Waste Management Law" This legislative Decree was approved in 2017 by the Peruvian president.

  Legislative Decree N°1278 "Solid Waste Management Law" (hereinafter, LGIRS) was approved in December 2016. In December 2017, its Regulations were approved through Supreme Decree No. 014-2017-MINAM, and modified through Supreme Decree No. 001-2022-MINAM. The LGIRS recognizes the circular economy, extended producer responsibility and the recovery of solid waste, as principles in the comprehensive management of solid waste. Likewise, it indicates that MINAM is in charge of promoting public and private, municipal and non-municipal initiatives that contribute to the reduction of the generation and danger, valorization and proper management of solid waste, including plastic waste. It should be noted that under the current framework, the primary purpose of waste management is to prevent or minimize their generation at source. Secondly, the material and energy recovery and recovery of waste is preferred.

- Law N°30884 "Law that Regulates Single-Use Plastic and Disposable Containers or Containers", approved in 2018 by the Peruvian President

  Law No. 30884 was approved on December 19, 2018. The Regulation of Law No. 30884 was approved on August 23, 2019 through Supreme Decree No. 006-2019-MINAM. Both regulatory instruments are intended for the consumption and production of single-use plastic goods to migrate to reusable, recyclable or biodegradable plastic goods in order to move towards a circular economy of plastic. This Law is framed in the principles and guidelines established in the LGIRS, especially in relation to the minimization, valorization and promotion of the circular economy, which will finally contribute to reduce the adverse impact on health and the environment due to the superfluous use of single-use plastic

- Supreme Decree N°003-2020-PRODUCE "Roadmap towards a circular economy in the industrial sector". This Legal instrument was approved in 2020.

  Supreme Decree N°003-2020-PRODUCE "Roadmap towards a circular economy in the industrial sector". This Legal instrument was approved in 2020 by the Peruvian president as well. The roadmaps are instruments that seek to promote and facilitate the development and incorporation of circular economy models in value chains, and allow: 1) to include the issue on the sector's agenda and promote a transversal view of the circular economy approach, 2) identify the needs of the sector to promote circular businesses, and 3) prioritize and execute actions to facilitate the development of value chains with a circular economy approach. The process of preparing the roadmaps includes the active participation of business associations, companies themselves, public institutions at the national and regional levels, academia, organized civil society and cooperation.

Republic of Korea

- Marine litter and contaminated sediment Management Act

  Marine Litter and Contaminated Sediment Management Act has its main goal on managing marine litter(including marine plastic waste and microplastics) using environment-friendly and life-cycle approach. It was established in 2019 and put into effect in 2020 to advance marine litter management system of the Republic of Korea. In accordance with the act the national marine litter management plan is established every 10 years to ensure strategic and systematical management for marine litter and to give guidelines which central government and local government can follow to tackle the problem.

- Act on Conservation and Utilization of the Marine Environment

  Act on Conservation and Utilization of the Marine Environment prescribes matters necessary for the prevention, improvement, response, and recovery with regard to marine pollution, by managing sources that generate pollutants, such as ships, marine facilities, and marine spaces, and regulate discharge of marine pollutants such as oil and noxious liquid substances. Before the enactment of the 'Marine Litter and Contaminated Sediment Management Act in 2020, marine debris was managed based on this act and 5 year-period national marine litter management plans were established from 2009.

- Framework act on resource circulation

  'Framework act on resource circulation' aims to make a transition to sustainable circulation economy by enhancing resource circulation policies on both ocean and land and reducing unnecessary waste of natural resources and energy.

Samoa

- Waste (Plastic Bag) Management Regulations 2018

  The Regulations came into effect in January 2019 banning the importation, selling, distribution, use and manufacturing of (i) plastic shopping bags, (ii) plastic packing bags, and (iii) plastic straws. An amendment to include Styrofoams such as take away food containers, cups and trays in the ban has been approved and currently in force.

Saudi Arabia

- "Waste Management Law" (Council of Minister No. 11-August 11, 2021)
- "Executive Regulations" to the new law (May 2022)
- "Technical Guidelines" Currently in progress

  On August 11, 2021 The Kingdom of Saudi Arabia passed a new and advanced waste management law that promotes and sets a solid legal framework for the development a sustainable waste management sector within the principles of a circular economy. The new law clearly sets objectives and responsibilities across the value chain of waste activities and stakeholders from generators to service providers and public authorities. It also sets the requirements for implementing Extended Producer Responsibility (EPR) principles for various products and wastes, requirements for service providers and facilities financial instruments, import and export of wastes, responsibilities of operators of maritime transportation ships in addition to civil and criminal liabilities and penalties.

Senegal

- Law n°2020-04 of January 8, 2020 relating to the prevention and the reduction of the impact on the environment of plastic products

  Senegal, through this law, wants to limit the production and importation of plastic products with high environmental impact, while accelerating the dynamics in implementing the circular economy.

  To achieve this goal, the law provides a range of measures including:

  - the ban of single-use or disposable plastic products for which there are sustainable alternatives, (Cups, straws, plates, knives, forks, …)
  - prohibition of checkout's plastic bags,
  - introduction of a plastic bottle deposit system, which is intended to be a good way to improve the collection rate and treatment of the resulting waste,
  - setting target for integrating recycled plastic into new products made of or manufactured from plastic materials
  - introduction of an Extended Producer Responsibility (EPR) regime which obliges producers to take responsibility for the products they place on the market when they become waste
  - introduction of a tax on products made from non-recyclable plastic materials

  The law does not specifically target marine plastic pollution, but it helps prevent the marine environment from plastic pollution.

Singapore

- Singapore addresses marine litter as part of a holistic approach to tackling pollution and waste. This includes legislation and regulations on pollution control and waste management, as well as an integrated solid waste management and collection system to minimise waste at source. The applicable legislation and regulations, as of October 2019, include:
  - Environmental Protection and Management Act (EPMA)
  - Environmental Public Health Act (EPHA) and subsidiary legislation
  - Sewerage and Drainage Act
  - Sewerage and Drainage (Trade Effluent) Regulations
  - Prevention of Pollution of the Sea Act (PPSA)
  - Resource Sustainability Act (RSA)

Spain

- Law 41/2010 for the protection of the marine environment,

  Law 41/2010 establishes the legal regime necessary to achieve or maintain the good environmental status of the marine environment, through its planning, conservation, protection, and improvement.

- Law 7/2022, of April 8, on waste and contaminated soils for a circular economy.

  Law 7/2022 includes amongst its objectives to prevent and reduce the impact of certain plastic products on human health and the environment, with special attention to the aquatic environment.

- Royal Decree 293/2018, of May 18, on reducing the consumption of plastic bagsThe five Spanish Marine Strategies, one per each marine subdivision, where legally approved by Royal Decree 1365/2018, 2nd November 2018.

  Royal Decree 293/2018 on reducing the consumption of plastic bags aims to adopt measures to reduce the consumption of plastic bags, with the purpose of preventing and reducing the adverse impacts that the waste generated by these plastic bags produce in the environment, with special attention to the damage caused to aquatic ecosystems, and in certain economic activities, such as fishing or tourism, among others. It also aims to avoid the loss of material and economic resources caused by the abandonment of plastic bags and their dispersion in the environment.

  That framework legislation transposes the European legislation on single use plastic (Directive (UE) 2019/904).

Sri Lanka

- Marine Pollution prevention Act no 35 of 2008 is being amended to incorporate necessary provisions to manage plastic litter and litter related issues

  As 80-90% of the marine litter is generated from land based activities. All regulations related to waste management applies to this.

  Regulations are available on plastic waste management.

  - Prohibit the manufacture of polythene or any polythene product of twenty (20) microns or below in thickness for in country use ; or (ii) the sale, offer for sale, offer free of charge, exhibition or use of polythene or any polythene product which is twenty (20) microns or below in thickness within the country : Provided that polythene or any polythene product of twenty (20) microns or below in thickness may be permitted to be used with the prior written approval of the Authority for the purposes specified in the Schedule hereto

  Regulations No. 2034/33 effective from 01st September 2017

  Prohibit the manufacture of food wrappers from polythene as a raw material for in country use; and (ii) the sale, offer for sale, offer free of charge, exhibition or use of food wrappers manufactured from polythene as a raw material within the country.

  - Prohibit the manufacture of any bag of high density polyethylene as a raw material for in country use; and (ii) sale, offer for sale, offer free of charge, exhibition or use of any bag manufactured from high density polyethylene as a raw material within the country.
  - No person shall burn openly or cause to, allow or permit the open burning of refuse or other combustible matters inclusive of plastics. 3. Any person who fails to comply with the regulations above shall be liable to an offence and punishable under Section 31 of the National Environmental Act, No. 47 of 1980.
  - Prohibit the use of all forms of polyethylene, polypropylene, polyethylene products or polypropylene products as decoration in political, social, religious, national, cultural or any other event or occasion.
  - Prohibit the manufacture of food containers, plates, cups and spoons from expanded polystyrene for in country use; and (ii) the sale, offer for sale, offer free of charge, exhibition or use of food containers, plates, cups and spoons manufactured from expanded polystyrene within the country

  Regulations of 2021 0n Single Use Plastics

  Gazette No 2211/50 and dated 21 January 2021 – Plastic Material Identification standards (Codes)

  These Regulations may be cited as the National Environmental (Plastic Material Indentification Standards) Regulations No. 01 of 2021.

  - Any manufactured plastic item shall be marked clearly in accordance with the Plastic Material Identification Standards specified in the Schedule hereto.
  - A plastic item manufactured using the material specified in Column I in the Schedule hereto, which is abbreviated in Column II, shall bear either one of the three symbol options specified in the corresponding entry in Column III of that Schedule.
  - In these regulations - “Plastic Item” means a product manufactured using polyethylene, terephthalate, high density polyethylene, low density polyethylene, polyvinyl chloride, polypropylene, polystyrene, any other similar raw material or any mixture thereof.

PLASTIC MATERIAL IDENTIFICATION STANDARDS

Column I	*Column II*	*Column III*		
Material	*Abbreviation of the material*	*Symbol options*		
		1	2	3
(1) Polyethylene terephthalate	PET or PETE			
(2) High-density polyethylene	HDPE or PE-HD			
(3) Polyvinyl chloride	PVC or V			
(4) Low-density polyethylene, Linear low-density polyethylene	LDPE or PE-LD			
(5) Polypropylene	PP			
(6) Polystyrene, expanded polystyrene, Styrofoam	PS			
(7) Other plastics, such as acrylic, nylon, polycarbonate, and multilayer combinations of different plastics	OTHER or O			

Gazette No 2211/51 and dated 21 January 2021:

- With effect from March 31st, 2021, prohibit the use of (a) Polyethylene terephthalate (PET) or polyvinyl chloride (PVC) material for packing agrochemicals used for any process, trade or industry; and
- (b) any plastic item specified herein for any process, trade or industry:
  - Sachets having less than or equal to a net volume of 20ml/ net weight of 20g (except for packing food and medicines).
  - Inflatable toys (except balloons, balls, water floating/pool toys and water sports gear).
  - Cotton buds with plastic stems (except plastic cotton buds used for medical/clinical treatment)

Thailand

- Act on the Maintenance of the Cleanliness and Orderliness of the Country, B.C./2535 (1992), 2560 (2017)

  Not emphasis only marine plastic litter but the legislation includes all harmful objects, substances or any form that harm environment including marine.

Türkiye

- Environmental Law
- Zero Waste Regulation
- Circular on Marine Litter Provincial Action Plans' Preparation and Implementation
- The Regulation on Recycling Contribution Share
- Procedures and Principles Regarding the Charging of Plastic Bags
- The National Waste Management and Action Plan (2016-2023)

UAE

- Federal law No.12 for the year 2018 on the integrated waste management.
- Cabinet Decision No. 39 for the year 2021 regarding the executive regulations of Federal law No. 12 for the year 2018 on the integrated waste management.

  The Federal law No.12 for the year 2018 and its executive regulation seek to regulate the waste management process and standardize the mechanisms and methods of proper waste disposal in line with best practices with the

  aim of protecting the environment and reducing risks to human health.

  The above legislations specified the responsibility of the waste producers and suppliers to the principle of extended producer responsibility and promoted the principle of waste sorting in society by standardizing the colors of containers in the UAE.

  The legislations also set standards for the operation of sewage treatment facilities, the proper management of hazardous waste, the technical requirements and environmental control for landfills.

  In addition, the regulations prohibit and put in place fines for establishments and individuals for littering, burying, incinerating or disposing of waste in open areas, roads, waterways, public parks and any other areas not designated for this purpose.

UK

United Kingdom-wide legislation

- The Marine Strategy Regulations 2010 (legislation.gov.uk):

  The Marine Strategy Regulations (2010) require necessary measures to be taken to achieve or maintain GES in UK seas. To help assess progress against GES it is broken down into 11 qualitative descriptors, including marine litter. These regulations make it law for the Secretary of State to produce indicators and targets and review these periodically.

  Ongoing Shipping Regulations with Amendments

  - The Merchant Shipping (Prevention of Pollution by Garbage from Ships) Regulations 2020
  - The Merchant Shipping and Fishing Vessels (Port Waste Reception Facilities) 2003 (as amended)
  - IMO Action Plan for Marine Litter from Ships 2018

  These measures incorporate international standards to prohibit the discharge of garbage (including fishing gear) into the sea from ships and ensuring adequate port waste reception facilities. They provide a framework to prevent the discharges of garbage in UK controlled waters and for ships to deliver their waste ashore to port waste reception facilities.

- London Convention 1972 (Convention on the Prevention of Maritime Pollution by Dumping of Wastes and Other Matter) and 1996 Protocol; and OSPAR Convention 1999

  These promote the effective control of all sources of marine pollution and the need to take all practicable steps to prevent pollution of the sea by dumping of wastes and other matter including bulky items of iron, steel and concrete. OSPAR is developing a new North East Atlantic Environment Strategy (NEAES), which will set OSPAR's strategic direction up until 2030 and includes strategic and objectives on marine litter.

- The UK is a Party to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. The requirements of the Basel Convention have been fully implemented in UK law through the European Waste Shipment Regulations and the UK Transfrontier Shipment of Waste Regulations.
- The Environment Act

  contains regulation-making powers which will allow the Government to deliver on its commitment to ban the export of plastic waste to non-OECD countries. We plan to hold a public consultation by the end of this year on proposals to deliver on this commitment.

- Littering

  The Environmental Protection Act 1990 and Litter (Northern Ireland) Order 1994 make littering a criminal offence, require local authorities and other bodies to keep their land clear of litter and refuse and provide local authorities with powers to take enforcement action against littering. The standards that land managers (primarily local authorities) are expected to meet in keeping their land clear of litter and refuse are set out in each administration's statutory code of practice.

- Landfill Tax

  Landfill Tax was introduced on 1 October 1996 to encourage waste producers and the waste management industry to switch to more sustainable alternatives for disposing of material. There is a lower rate of tax, which applies to less polluting qualifying materials covered by two Treasury Orders, and a standard rate, which applies to all other taxable material disposed of at authorised landfill sites. Previously, the tax applied across the UK but from 1 April 2015 it was devolved to the Scottish Parliament and Welsh Parliament/ Senedd Cymru from 1 April 2018 in Wales.

Voluntary Measures

- Responsible Fishing Vessel Standard

  The RFVS is a global-scale fishing vessel-based program certifying high standards of vessels management and safety systems including crew rights, safety and well-

being. In June 2020, the final RFVS was publicly shared and officially handed over from Seafish to Global Seafood Assurances, following a two-year, collaborative development process.

The RFVS requires that procedures shall be put in place for the management and recording of:

- lost, 'end-of-life', or recovered (third-party) fishing gear; and
- inorganic / non biological waste produced from vessel operations, including gear repair activities and waste that is recovered from the marine environment, shall be brought ashore to be managed in a manner that will not have a detrimental impact on the environment.

- Food and Agriculture Organization (FAO) Code of Conduct for Responsible Fisheries (CCRF)

  This provides a framework for national and international efforts to ensure sustainable exploitation of aquatic living resources in harmony with the environment. It includes retrieval of lost or abandoned fishing and aquaculture gear (and fragments of gear) and banning of dumping. It is a recognised Code of Conduct which UK seafood businesses need to be aware of. On behalf of the UK Devolved Authority / Fisheries Administrations, Seafish continues to coordinate (latest 2021) and submit the biennial CCRF Aquaculture Questionnaire to the FAO.

Legislation by administration

England

- The Environmental Protection Regulations 2020 (Plastic Straws, Cotton Buds and Stirrers) (England)

  We introduced legislation to restrict the supply of plastic straws and cotton buds with some exemptions (for medical reasons) and banned the supply of plastic drink stirrers in October 2020.

Northern Ireland

- Climate Change (Northern Ireland) Act 2022

  With reference to the commitment in New Decade New Approach to bring forward a Climate Change Act, the Act was passed by the Assembly on 9 March 2022 and received Royal Assent on 6 June 2022. It includes

  - A net zero target for greenhouse gas emissions by 2050 at the latest
  - A requirement for climate action plans and carbon budgets to be set for all sectors and
  - The need to ensure a just transition to help sectors move to net zero

  Reuse and repair of textiles and reducing plastic consumption and waste will reduce the overall generation of waste and reduce carbon emissions, contributing to net zero.

- The Waste (Circular Economy) (Amendment) Regulations (Northern Ireland) 2020, came into effect in Northern Ireland on 18 December 2020. The legislation includes requirements for measures to ensure better compliance with the waste hierarchy, a widening of the scope of waste streams that must be separately collected and incrementally increasing recycling targets. It also defines specific recycling targets for packaging, requires specific measures for littering and sets minimum requirements for all extended producer responsibility schemes.

  https://www.legislation.gov.uk/nisr/2020/285/pdfs/nisr_20200285_en.pdf

- Guidance to district councils: litter (updated 2012)

  https://www.daera-ni.gov.uk/publications/guidance-district-councils-litter

Scotland

- The Single Use Carrier Bags Charge (Scotland) Regulations 2014

  https://www.legislation.gov.uk/sdsi/2014/9780111023211

- The Environmental Protection (Microbeads) (Scotland) 2018

  https://www.legislation.gov.uk/ssi/2018/162/contents/made

- The Environmental Protection (Cotton Buds) (Scotland) 2019

  https://www.legislation.gov.uk/ssi/2019/271/contents/made

- The Deposit and Return Scheme for Scotland Regulations 2020. All drinks containers up to 3l including plastic bottles.

  https://www.legislation.gov.uk/sdsi/2020/9780111044681/contents

- (Draft) Environmental Protection (Single-Use Plastic Products and Oxo-degradable Plastic Products) (Scotland) 2021

  https://www.gov.scot/publications/draft-environmental-protection-single-use-plastic-products-oxo-degradable-plastic-products-scotland-regulations-2021-discussion-paper/pages/1/

- Code of Practice on Litter and Refuse (2018)

  https://www.gov.scot/publications/code-practice-litter-refuse-scotland-2018/

- Environmental Protection Act 1990 - Fixed penalty notices of £80 can be issued for littering, or following prosecution a fine can be charged of up to £2,500.

  https://www.legislation.gov.uk/ukpga/1990/43/section/87

- Regulatory Reform (Scotland) Act 2014 - A fly-tipping fixed penalty notice of £200 can be issued, or on prosecution an individual can be sentenced to imprisonment and risk a fine of up to £40,000

  https://www.legislation.gov.uk/asp/2014/3/part/3/chapter/2/enacted

- The Environmental Protection (Single-use Plastic Products) (Scotland) Regulations 2021

  https://www.legislation.gov.uk/ssi/2021/410/contents/made

- To enable activities to remove litter without licenses - The Marine Licensing (Exempted Activities) (Scottish Inshore Region) Order 2011

  https://www.legislation.gov.uk/ssi/2011/204/article/4/made

Wales

- The Welsh Government Code of Practice for Litter and Refuse is under review and is expected to be published 2021.

US

- U.S. Marine Debris Act

  The U.S. Marine Debris Act, originally passed in 2006, established a national Marine Debris Program within NOAA to identify, determine sources of, assess, prevent, reduce, and remove marine debris and address the adverse impacts of marine debris on the economy of the United States, marine environment, and navigation safety. The Act also set forth direction for the U.S. Coast Guard to address ship-based waste in accordance with MARPOL requirements.

  In 2012, the Act was amended to include provisions for NOAA to address marine debris resulting from natural disasters and severe weather events, in recognition of the high volume of debris that can be caused by such events.

  In 2018, the Act (renamed the “Save Our Seas Act”) was further amended to expand work across the U.S. government, most notably with the U.S. Department of State, to engage foreign governments, especially those of high marine debris source countries, to better address marine debris through strengthened solid waste management. The 2018 Act also mandated that the U.S. government consider addressing marine debris in all future trade agreements. (The Save Our Seas Act 2.0 was passed in December 2020 and is noted in Section D below)

  The Act also created the Interagency Marine Debris Coordinating Committee (IMDCC), the federal interagency coordinating body responsible for addressing marine debris. IMDCC is made up of six agencies named in the Marine Debris Act, led by NOAA, as the chair, and EPA as vice-chair. The Department of Defense, Department of Homeland Security, Department of the Interior, and Department of State participate as members.

  IMDCC is primarily responsible for sharing information, assessing and implementing best management practices, and coordinating interagency responses to everyday marine debris and severe marine debris events.

  IMDCC ensures coordination of federal agency research priorities, monitoring techniques, educational programs, and regulatory actions.

  IMDCC is also responsible for recommending priorities and strategies, both nationally and internationally, to identify, determine sources of, assess, reduce, prevent, and mitigate the adverse impact of marine debris on the marine environment, natural resources, and vessels.

- Clean Water Act (EPA)

  The Clean Water Act (CWA) requires each state to establish water quality standards for all bodies of water in the state. Water quality standards consist of the designated beneficial use(s) of a waterbody, plus a numerical or narrative statement identifying maximum concentrations of various pollutants that would not interfere with the designated use. Many states have established narrative criteria for trash or floatables, which inherently include plastic waste.

  CWA also allows for states to list waters impaired by pollutants, including trash/plastic waste. Unless planned measures can be taken to address impairments, the Act requires that states or US EPA develop Total Maximum Daily Loads (TMDLs) for those pollutants. Several states have trash-impaired waterbody listings.

  The National Pollutant Discharge Elimination System (NPDES) regulates some stormwater discharges from three potential sources: municipal separate storm sewer systems (MS4s), construction activities, and industrial activities. Operators of these sources might be required to obtain an NPDES permit before they can discharge stormwater. A large number of NPDES permits have provisions addressing the stormwater nexus for trash entering waterways.

  The Nonpoint Source Management Program requires states to develop nonpoint source management programs, and EPA has subsequently required updates for these programs. Trash is a pollutant that can be addressed through such programs, and nonpoint source grants authorized by Section 319 can be used to address trash pollution.

- Resource Conservation and Recovery Act (EPA)

  The Resource Conservation and Recovery Act (RCRA) charges EPA to protect human health and the environment from potential hazards of waste disposal; conserve energy and natural resources; reduce the amount of waste generated; and ensure that wastes are managed in an environmentally sound manner by establishing minimum national criteria for solid waste facilities. RCRA regulations are generally implemented by states and tribes and/or at the local level, with state, tribal or local governments having the option to put forth regulations that are more stringent than the national standards. These national standards are critically important to ensuring the sound management of solid waste nationwide. Facilities that do not meet these standards are considered open dumps that must close. EPA implements the conservation mandate in RCRA through its Sustainable Materials Management Program. Sustainable materials management (SMM) is a systemic approach to using and reusing materials more productively and effectively over their entire life cycles. By

looking at a material's entire life cycle, we can find new opportunities to reduce environmental impacts, conserve resources and reduce costs. Recycling and waste diversion programs also are primarily implemented at the state, tribal and local levels.

- Save Our Seas 2.0 Act

  The Save Our Seas 2.0 Act is composed of three main pieces:

  - Strengthening the United States' domestic marine debris response capability with a Marine Debris Foundation, a genius prize for innovation, and new research to tackle the issue.
  - Enhancing global engagement to combat marine debris, including formalizing U.S. policy on international cooperation, enhancing federal agency outreach to other countries, and exploring the potential for a new international agreement on the challenge.
  - Improving domestic infrastructure to prevent marine debris through new grants for and studies of waste management and mitigation.

- Microbead-Free Waters Act

  The Microbead-Free Waters Act prohibits the manufacturing, packaging, and distribution of rinse-off cosmetics containing plastic microbeads.

  The law also applies to products that are both cosmetics and non-prescription drugs, such as toothpastes.

- Toxic Substances Control Act

  Under TSCA, EPA has the authority to require testing of new and existing chemical substances such as those that may be in plastic waste entering the environment, and subsequently the authority to regulate these substances.

  While TSCA can potentially be used for the purpose of addressing risks specific to chemical substances that may be in plastic waste, to date EPA has not used the authorities in the Act to regulate plastic waste.

- Rivers and Harbors Appropriations Act

  The Rivers and Harbors Appropriations Act authorizes the Army Corps of Engineers to issue permits for the discharge of materials of any kind into navigable waters under section 13.

EU

- Legislation on waste

  The EU's long tradition of legislation on waste (starting in the 1970s and over the years developed into a comprehensive body of legislation) plays an important role in preventing marine litter. As part of the shift towards a circular economy, an important review of the waste legislation took place and the ensuing legislative proposals adopted in 2018 introduced the world's most ambitious waste-management targets and strengthened provisions on waste prevention. Today EU's waste policy includes:

  - Horizontal legislation setting the main definitions and principles
  - Laws on how waste should be treated
  - Legislation on specific products or so-called waste streams (many of which will be further modernised in the years to come)

  Related URL:

  https://ec.europa.eu/environment/waste/target_review.htm

- Marine Strategy Framework Directive

  The Marine Strategy Framework Directive (MSFD, 2008/56/EC) was the first EU legal instrument to explicitly address marine litter; it requires "Good Environmental Status" for marine litter to be achieved by 2020, i.e. that "properties and quantities of marine litter do not cause harm to the coastal and marine environment". Assessment of the status, target setting, monitoring, reporting and implementation of measures related to marine litter and microlitter are carried out in accordance with relevant MSFD provisions and have been further specified within a Decision by the European Commission (2017/848/EU). The Commission assessment of the measures submitted by the EU Member States was published in July 2018; in 2020 the Commission published a report on MSFD implementation MSFD activities against marine litter are supported by the MSFD Technical Group on Marine Litter, bringing together experts from Member States, Regional Sea Conventions, NGOs, umbrella organisations and scientific project leads. It acts as an advisory group to the policy process and links science with policy, providing guidance and recommendations on relevant issues such as monitoring methodologies, harm caused by marine litter and sources of marine litter. Importantly, it has been tasked to develop baseline quantities and threshold values for marine litter and microlitter pursuant to the abovementioned Commission Decision. The EU Marine Beach Litter Baselines report was published early 2020. In September, EU Member States agreed on a beach litter threshold value of 20 items per 100 m of beach, More threshold values in relation to marine litter and microliter (including microplastics) are being developed.Other EU instruments that help tackle marine litter include legislation on Port Reception Facilities for the delivery of waste from ships (2019), the Single-Use Plastic Directive focusing on most frequently found marine litter (including fishing gear containing plastic) (2019), the EU's International Ocean Governance Agenda (2022) and the Urban Waste Water Treatment Directive, under review, also aiming to better capture microplastics in wastewater treatment.

  As a follow-up of the Single-Use Plastic Directive, the Commission also adopted a decision on a standardization request to the European Committee for Standardisation as regards circular design of fishing gear (2021) and a decision laying down the format for reporting data and information on fishing gear placed on the market and waste fishing gear collected in Member States (2021).

The European Commission also adopted its Zero Pollution Action Plan in May 2021 where, among other things, includes a target of reducing by 50% plastic litter at sea and of 30% micro plastics released into the environment by 2030.

Related URL:

https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm

https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L0883

https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L0904&from=EN

https://oceans-and-fisheries.ec.europa.eu/publications/setting-course-sustainable-blue-planet-joint-communication-eus-international-ocean-governance-agenda_en

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2021.211.01.0051.01.ENG&toc=OJ%3AL%3A2021%3A211%3ATOC

https://ec.europa.eu/environment/strategy/zero-pollution-action-plan_it

2.3. Indicators

Countries

Australia

- Packaging targets

  In April 2018, Australia's Environment Ministers agreed to reduce the amount of waste generated and make it easier for products to be recycled. Ministers endorsed a national target of 100 per cent of Australian packaging being recyclable, compostable or reusable by 2025 or earlier.

  The Australian Packaging Covenant Organisation (APCO) developed three supporting industry targets to increase the use of recyled content. Together the four targets create a new sustainable pathway for the way we manage packaging in Australia. The four National Packaging Targets, to be achieved by 2025, will see:

  - 100% of packaging being recyclable, compostable or reusable
  - 70% of plastic packaging being recycled or composted
  - 50% of average recycled content included in packaging
  - The phase out of problematic and unnecessary single-use plastics packaging.

- The Australian Government supports APCO's ongoing work to deliver a suite of resources for industry to assess and improve the design and manufacturing of their packaging. These include the Sustainable Packaging Guidelines, Food Services Packaging Sustainability Guidelines, Quick Start guidelines for design for recovery and PET.

- The Australian Government strongly supports the use of the Australasian Recycling Label (ARL) as the only verified recycling label on the Australian market. The ARL is a world-leading consumer education tool which helps households recycle and assists brand owners to design recyclable packaging. The Australian Government has also invested $5 million to support small-to-medium enterprises to implement the ARL on their packaging, in turn giving households greater guidance on how to recycle and keeping more plastics out of landfill.

  A national plastics pollution monitoring protocol and web portal – Australia's 2021 National Plastics Plan includes a commitment for the Australian Government to establish a national monitoring protocol and web portal for plastics pollution. This is currently in the early stages of development and is due for completion in 2025.

Brazil

- According to the 2022 Action Plan for National Plan to Combat Marine Litter:

Actions	Indicators
To implement measures for environmentally sound management of solid wastes	Number of coastal municipalities with environmentally sound destination of solid wastes
To deploy devices for solid waste retention in rain galleries and water courses	Quantity of devices installed
To perform actions of cleaning and litter collection in mangroves and on sea and fluvial shores	Quantity of actions carried out; Quantity of waste collected
To perform litter combating actions in rivers	Number of municipalities with actions undertaken
To provide data and information for continuous improvement of actions for pollution prevention and environmental recovery	Platform updated available on the Ministry of the Environment website

Canada

- Canada is working towards the ambitious goal of zero plastic waste by 2030

  The Ocean Plastics Charter, championed by Canada during its 2018 G7 Presidency, includes actions across the plastics lifecycle to reduce plastic waste and pollution. Specific Ocean Plastic Charter targets:

  - Working with industry towards 100% reusable, recyclable, or where viable alternatives do not exist, recoverable plastics by 2030;
  - Working with industry towards increasing recycled content by at least 50% in plastic products where applicable by 2030;
  - Working with industry and other levels of government to recycle and reuse at least 55% of plastic packaging by 2030 and recover 100% of all plastics by 2040; and
  - Working with industry towards reducing the use of plastic microbeads in rinse-off cosmetic and personal care consumer products, to the extent possible by 2020, and addressing other sources of microplastics.

  The Government of Canada is leading by example and has committed to divert at least 75% of plastic waste from federal operations by 2030.

  Through the Canadian Environmental Sustainability Indicators program, Canada has established the plastic particles in the Northern Fulmar indicator. This provides information on the mass of plastic found in the Northern Fulmars' stomach in birds collected in Canada. The Northern Fulmar is a seabird that feeds exclusively on the surface (top 1 metre) in the open ocean. The indicator reports the proportion of birds with 0.1 g or more of plastic in their stomachs and gives an overview of the situation at the national and the regional levels.

  In 2018, Environment Ministers endorsed a broader aspirational Canada-wide waste reduction goal (for all waste, including plastics). In 2014, every Canadian threw away on average 706 kg of waste. The goal will reduce this number by 30 per cent per person by 2030, with a 50 per cent reduction by 2040.

  Canada has also endorsed relevant international commitments, including the United Nations Sustainable Development Goals target 14.1 to prevent and significantly reduce marine litter by 2025 and the Osaka Blue Ocean Vision that aims to reduce additional marine plastic pollution to zero by 2050.

Chile

- The targets on recovery of plastic packaging by EPR regulation consider a progress from 3 to 45% in 12 years on household packaging and from 15 to 55% for non-household packaging.

  Prohibition on the use of plastic bags in commerce from February 2019, with exception of micro, small and medium scale companies, for which the prohibition entered into force in August 2020.

  Regarding the regulation on EPR for packaging, the project includes these targets:

  Targets for household packaging

Year	Food cartons	Metal	Paper and Card-board	Plastic	Glass
1st	5 %	6 %	5 %	3 %	11 %
2nd	8 %	9 %	9 %	6 %	15 %
3rd	11 %	12 %	14 %	8 %	19 %
4th	15 %	15 %	18 %	11 %	22 %
5th	19 %	17 %	23 %	14 %	26 %
6th	23 %	21 %	28 %	17 %	31 %
7th	27 %	25 %	34 %	20 %	37 %
8th	31 %	29 %	39 %	23 %	42 %
9th	36 %	32 %	45 %	27 %	47 %
10th	40 %	36 %	50 %	30 %	52 %
11th	50 %	45 %	60 %	37 %	58 %
From the 12th year	60 %	55 %	70 %	45 %	65 %

  Targets for non-household packaging

Year	Metal	Paper and Cardboard	Plastic
1st	23 %	48 %	13 %
2nd	32 %	54 %	19 %
3rd	42 %	60 %	25 %
4th	51 %	65 %	32 %
5th	61 %	71 %	38 %
6th	64 %	74 %	42 %
7th	66 %	78 %	46 %
8th	68 %	81 %	51 %
From the 9th year	70 %	85 %	55 %

Costa Rica

- There are indicators for the continental generation of ordinary residues: for example, total generation, per capita, by generating sector, by type of waste, collection coverage, collection coverage of recoverable and non-recoverable cantonal waste, etc. The municipalities oversee these indicators from the local level and the Ministry of Health from the national level, who also consolidates a residues metric. However, in the area of marine residues, further coordination and detail is required in the short term to define specific indicators.

Fiji

- Since the ban of the single use plastic bags came into effect, there has been a reduction in the amount plastic floating with EEZ.
- Also, there has been a decrease in plastic litter observed along the coastal areas. Similarly, the Polystyrene ban has led to a reduction in Styrofoam products within the EEZ and coastal areas.

France

- Examples of targets for the legislation against waste and for circular economy :
  - 5% of reused packaging by 2023
  - 10% of reused packaging by 2027
  - 50% less single use plastic bottles by 2030
  - 100% recycled plastic by 2025
  - 20% reduction target for single-use plastic packaging (expressed as tonnages of incorporated plastic / reference year 2018) by 31st December 2025, taking into account that at least 50% of this target must be achieved through the reuse of packaging
  - 77% of plastic bottles collected by 2025
  - A threshold has been defined at the EU level and it sets a target for good environmental status of a maximum of 20 litter items for 100 meters of beaches.
  - At OPSAR : OSPAR member states set the aim to reduce SUP and marine related items by 50% by 2025 and 75% by 2030. Another indicator analyses the plastic particles present in fulmar stomachs with the aim of finding no more than 0.1 g of plastics in stomach of less than 10% of fulmars. 2 other indicators concern marine litter on seafloor and the ingestion of litter by sea turtle. (France also applies the indicators of the Barcelona convention which are relatively the same as at OSPAR).
  - In the framework of the Marine Framework Directive environmental objectives have been defined with as target a decrease in the amount of litter found in the marine environment. Concerning the reduction of the input and presence of land-based waste found at sea and on the coastline, the indicator is the quantities of waste of terrestrial origin most represented on the seabed and on the coastline. Relatively to the reduction of the input and the presence of waste at sea from maritime activities, uses and facilities, the indicators are the quantities of the most represented wastes from the main maritime activities on the coastline and on the seabed and the quantity of wastes collected in fishing ports from maritime fishing activities.

Germany

- Acc. to EU MSFD and regional provisions (OSPAR, HELCOM): Beach litter,litter on the seafloor and plastic particles in the stomachs of seabirds (Northern fulmars are common/core indicators

Indonesia

- To reduce MPL by 70% in 2025 compared to 2018 baseline

Italy

- Definitions of ENVIRONMENTAL TARGETS (Target) pursuant to Ministerial Decree of February 15, 2019 according to the implementation of the Directive 2008/56/EC.

  T 10.1 Tends to decrease the number / quantity of marine litter present on the coasts, in the surface layer of the water column, on the seabed and the rate of increase of marine litter and micro litter in the surface layer of the water column is reduced by reducing the introduction and increasing the collection of marine litter at se a and on the coasts.

  T 10.2 The trend in the amount of marine litter ingested by marine animals is decreasing.

  T 10.3 Knowledge gaps on the origin, state, composition, dispersion and impact of litter at sea are reduced through the increase of survey programs.

Japan

- “National Action Plan for Marine Plastic Litter” includes five indicators for monitoring progress:
  - Amount of plastic waste generated, recycled, heat recovered, incinerated without energy recovery, and land filled
  - Amount of collected land-based litter, illegal dumping, and scattered waste
  - Amount of marine litter collected by clean-up activities
  - Production capacity and amount of consumption of alternative materials such as marine degradable plastics and paper
  - Increment of plastic waste generated, recycled, heat recovered, incinerated without energy recovery, and land filled, thanks to international cooperation

Myanmar

- No indicators - To establish a solid mechanism for understanding the progress of each action, and ensuring the overall implementation of the National Plastic Action Plan, the reporting, recording and evaluation mechanisms will be included in the National Plastic Action Plan.

Netherlands

- The regional sea convention for the North-East Atlantic, OSPAR, has developed several common indicators to monitor marine litter: a) beach litter; b) plastic particles in fulmars (this also gives an indication of the impact on biota) and seafloor litter.

  See: Monitoring & Assessing Marine Litter | OSPAR Commission:

  https://www.ospar.org/work-areas/eiha/marine-litter/assessment-of-marine-litter#:~:text=OSPAR%20marine%20litter%20experts%20are%20part%20of%20the,plastic%20particles%20in%20fulmar%20stomachs%20as%20common%20indicators

  The Netherlands is closely involved in the development of an OSPAR indicator on microplastics in sediments

- For the plastic pacts and the transition agenda for plastics, we look at the entire supply chain of plastics: recyclability of plastics, reduction in usage (through reuse or refuse), the amount of recycling taking place and what form (chemical or mechanical) and the inputs used (recyclate, virgin, biobased).

Norway

- We do not have specific national-only indicators that are targeting marine plastic litter.

  But as part of the OSPAR, Norway assesses beach litter, seabed litter and plastic particles in fulmar stomachs as common indicators for the OSPAR Maritime Area; the North-East Atlantic. Further indicators is under development under OSPAR. Norway maps marine litter through different activites including Mareano- mapping of the seafloor, and registration during fish stock monitoring including in the Barents Sea. Norway has recently started systematic monitoring of microplastic in the marine environment, according to indicators recommended in GESAMP-guidelines and the work program AMAP under Arctic Council. The plan is to further develop this first stage monitoring. Further, we are preparing the start of a systematic national monitoring of macroplastic including using data from OSPAR-monitoring, reporting of lost fishing gear etc.

  https://oap.ospar.org/en/ospar-assessments/committee-assessments/eiha-thematic-assessments/marine-litter/beach-litter-monitoring/

  https://oap.ospar.org/en/ospar-assessments/intermediate-assessment-2017/pressures-human-activities/marine-litter/composition-and-spatial-distribution-litter-seafloor/

  https://oap.ospar.org/en/ospar-assessments/committee-assessments/eiha-thematic-assessments/marine-litter/plastic-particles-in-fulmar-stomachs-north-sea/

- We support international processes on the issue, in several arenas, including under Nordic Council of Climate and Environment Ministers, Arctic Council and UNEP.

- Norway believes also upstream, close to source-monitoring is important nationally as well as at international level. Norway is a.o. supporting a study under the Nordic Council of Ministers on relevant indicators for plastic pollution including plastic leaks along the plastic value chain to be finalized in 2022. Norway believes that monitoring, where such indicators is needed, should be an important part of the international legally binding agreement on plastic pollution that is to be developed.

Republic of Korea

- Water Quality Index(WQI)
- Amount of collected marine litter through national marine litter removal projects
- Amount and type of marine litter collected by national marine litter monitoring program
- Amount and type of microplastics in oceans evaluated by the microplastic distribution monitoring research

Republic of Marshall Islands

- Waste and Pollutants Regulation:
- Recycling Regulation 2021

Saudi Arabia

- The above National Action Plan for Managing Marine Litter in the Red Sea consists of 17 different Actions with clear targets and indicators to measure and track progress across each action. In total, there are 23 different targets & 22 corresponding indicators measuring progress. The various actions of the plan are listed below
  - Awareness & Education (4 actions: 6 targets & 6 Indicators)
  - Legal & Institutional Framework (4 actions: 6 targets & 6 indicators)
  - Encouraging public and private partnerships (3 actions: 4 targets & 4 indicators)
  - Removing Marine Litter (1 action: 1 target & 1 indicator)
  - Research & Monitoring (4 actions: 4 targets & 4 indicators)
  - Capacity building & training (1 action: 2 targets & 1 indicator)
- A complete list of specific indicators is provided below:
  - B1: Number of educational items produced for schools
  - B1: Number of awareness items produced for more general stakeholder groups
  - B2: At least one major workshop per costal city/town biannually in Jeddah, Jizan, Yunbu and Duba.
  - B3: Meeting between the persons responsible for this NAP and senior managers of other ministries to discuss progress with NAP
  - B4: Number of newspaper editors (or senior managers) met
  - B4: Number of newspaper articles per annum per newspaper
  - C1: Complete review document

- C2: Review
- C2: Plan to achieve compliance with MARPOL requirements
- C2: Reception facilities in Saudi Arabia's red sea ports compliant
- C3: Biannual audits of every Saudi Arabia Red Sea Port with reception facilities
- C4: Review completed by second quarter 2024
- D1: Flagship demonstration action trailed in Saudi Arabia
- D2: Develop policy
- D3: Implementation of 1 novel action to reduce litter entering the marine environment
- D3: Implementation of 1 novel action to remove litter entering the marine environment
- E1: Completed strategy
- F1: Number of new locations where baseline litter have been collected
- F2: Number of repeated surveys of baseline locations
- F3: Number of studies focusing on social and economic impacts from Marine litter
- F4: Number of studies focusing on protective and regulatory measures to reduce marine litter
- G1: List of priority training needs

Spain

- The Marine Strategies specify indicators to measure and monitor MPL, amongst others:
  - No. of ports where a trash fishing initiative is being developed
  - No. of vessels participating in litter fishing actions.
  - Kg/ no. of marine litter items collected
  - No. of fish gear inventoried
  - No. of removal actions undertaken
  - Kg of fishing gear placed on the market
  - Kg of fishing gear selectively collected at fishing ports
  - Fishing gear recycling rate
  - Volume of solid waste generated on board (MARPOL V) landed in ports
  - Floating, bottom and beach litter from navigation and fishing
  - No of single-use plastic objects on beaches, including among others: cotton swabs, cutlery, plates, straws, food and drink containers, cigarette filters, light plastic bags and wet wipes, etc.
  - No of microplastics found on beaches
  - No. of measures taken by industrial sectors (among others, the plastic pre-production industry, tires, paint decomposition, synthetic clothing laundry, artificial turf, cosmetics, etc.)
  - No. of measures taken to avoid microplastics
  - No. of hotspots or sites of accumulation of agricultural plastics
  - No. of plastics of agricultural origin found
  - Waste ingestion by sea turtles
  - Macro biota entanglement
  - Microplastic ingestion by biota

Sri Lanka

- The main indicator as per the National Action Plan is

  Percentage reduction of plastics entering oceans from land
- Other Indicators:
  - The amount plastic waste in selected shoreline stretches
  - Plastic waste distance ration kg/ km
  - Introducing indicator for floating plastic litter: km / Square meter and Micro gramme/ square meter is in progress
  - No of beach Clean-up Programmes
  - No of plastic traps established
  - No of beach caretakers recruited.
  - Quantity Plastic raw material imported
  - % of violators of the regulations and rectification of that
  - % of Increase in a recycling facility

Thailand

- Marine debris report by pieces and by weight

Türkiye

- IMAP Indicators E010; Beach Litter, Seafloor ML and Microplastics

UK

- The UK Marine Strategy uses marine litter as an indicator of clean seas, showing changes to the amount of litter in the marine environment, including litter on beaches, on the seafloor and floating litter. Beach litter surveys are completed annually or quarterly and cover a representative number of beaches. Data from trawl surveys, typically carried out for fish stock assessments, are used to monitor the amount of litter on the seafloor. After each tow all litter items are emptied from the net and counted and classified. Beached fulmars or individuals accidently killed are collected as part of a monitoring programme in the Greater North Sea to assess the plastics found in their stomachs. Fulmars forage exclusively at sea, generally at the surface of the water. The amount of plastic they ingest can be used as a proxy for the abundance of floating litter in their environment and how this is changing. Indicators for seafloor litter, beach litter and litter found in Fulmar stomachs have been developed and expert groups are working to improve the data. Additional monitoring programmes are being developed to record the amount of microplastics in sediment and in biota.

- The UK Marine Strategy Part One assessment indicators of beach litter, seabed litter and plastic particles in fulmar stomachs are also used for reporting to the OSPAR monitoring and assessment programme. These allow the abundance, trends and composition of marine litter in the OSPAR Maritime Area to be determined for different marine compartments (floating, seafloor and coast). OSPAR is currently also working to develop new indicators, including microplastics in sediments. The microplastics indicator will address levels in marine sediments and will cover the whole OSPAR Maritime Area. The Microplastics in Sediment Expert Group at OSPAR is led by Cefas.

EU

- Indicators for marine litter occurrence and impact in the marine environment are provided through Descriptor 10 of the Marine Strategy Framework Directive. It specifies criteria for litter on the coastline, in the water surface layer and on the seafloor, as well as microlitter in all matrices and impacts of litter through ingestion, entanglement and other adverse effects. Baselines are derived from reliable, sufficient and comparable monitoring data and are used to assess status, evaluate trends, measure the success of mitigation measures and prioritise actions.
- Data on marine litter concentration are available through the EMODnet platform. This includes a complete set of data on litter on beaches of EU Member States and some neighbourhood countries, normalised to common standards.
- Work on normalising data on floating, seabed and microlitter concentrations is underway. A target threshold value for beach litter (i.e. 20 litter items/100 m of coastline), has been established in 2020 (see the JRC Technical Report on A European Threshold Value and Assessment Method for Macro Litter on Coastlines), which is estimated to reduce harm from beach litter to a sufficiently precautionary level.

  URL:

  https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm

  https://emodnet.ey/

International Organisations and NGOs

ADB

- ADB's Strategy 2030

  Strategy 2030, which sets the course for ADB to respond effectively to the Asia and Pacific region's changing needs, has a monitoring framework that includes indicators and targets for each of its operational priorities. The following are the most relevant Strategy 2030 operational priority results against marine plastic litter. These will be monitored under ADB's corporate results framework and will be reported annually in the Development Effectiveness Review:

  - Pollution control infrastructure assets implemented
  - Pollution control and resource efficiency solutions promoted and implemented
  - Solutions to conserve, restore, and/or enhance terrestrial, coastal, and marine areas promoted and implemented

  Each ADB project and technical assistance has a Design and Monitoring Framework with targets and indicators aligned to Strategy 2030. The following are performance indicators with targets in the regional technical assistance on "Promoting Action on Plastic Pollution from Source to Sea in Asia and the Pacific":

  - By 2022, a partnership facility for healthy oceans and blue economy established.
  - By 2022, at least two policy, regulatory or institutional interventions drafted; at least four marine plastic pollution reduction projects supported; and at least five knowledge products developed and disseminated.
  - By 2023, ocean health issues and actions mainstreamed into at least two ADB-supported subregional cooperation programs; at least four government-led action plans on marine plastic pollution drafted; at least two pilot demonstration projects on a plastic circular economy and marine plastic pollution reduction implemented; at least three high-level forums on healthy oceans and plastic circular economy, including through subregional cooperation; at least six knowledge sharing and capacity building activities on healthy oceans and plastic circular economy implemented; and at least 200 (40 per participating DMC) government officials (40% of whom are women) reported improved knowledge of marine plastic pollution issues and solutions.

ERIA

- Plastic waste monitoring indicators development for the ASEAN context

  Having its mission to support the ASEAN Secretariat, and the implementation of its Regional Action Plan, ERIA, Institute for Global Environmental Strategies (IGES), and IGES Centre Collaborating with UNEP on Environmental Technologies (IGES-CCET) have established the ERIA's Experts Working Group on Marine Plastic Debris, bringing together researchers from a diverse set of disciplines, with knowledge and expertise applicable to the ASEAN context. With the input from these experts, the Working Group aims to establish baselines on plastics in the region and offer a multidisciplinary assessment of marine plastics in the ASEAN region.

  One of the on-going workstreams proposed by the experts is plastic waste monitoring indicators development for the ASEAN context. The workstream will be a focus of the Working Group for the period of 2022-2023 and beyond.

  The workstream aims to review internationally existing indicators on monitoring of plastic waste and formulate new indicators to be further proposed as technical input to relevant ASEAN Working Group.

IAEA

- Marine microplastic monitoring and assessment

  The present common use of plastic must move away from "take-make-waste" towards a sustainable circular economy built on the 4R principles: reduce, reuse, recycle and renew.

  NUTEC Plastics is an initiative inherently contributing to the 2030 Agenda for Sustainable Development and SDG 12.5, which calls on countries to "...substantially reduce waste generation through prevention, reduction, recycling and reuse". The positive effects on the marine environment, of improving recycling, will be assessed through application of nuclear techniques for understanding the abundance and impact of marine plastic pollution. Ultimately NUTEC Plastics benefit Member States through improved marine plastic management based on harmonized monitoring and projected plastic pollution assessments.

  The IAEA provides support and assists Member States in developing the capabilities to use the aforementioned techniques to monitoring marine plastic pollution. It is worth noting that this contributes directly to the UN Sustainable Development Goals, including, Goal 14: life below water. More specifically IAEA's capacity building effort related to marine plastic pollution helps IAEA Members states to be able to report indicator 14.1.1 (Plastic debris density).

UNDP

- UNDP Plastic Offer; UNDP Small Grants Programme (SGP) Plastic Innovation Programme

  As part of efforts to achieve the goals of the Plastics offer, UNDP is supporting non-governmental and civil society organizations, governments and other stakeholders to implement upstream, midstream and downstream measures towards reducing plastic production, use and waste. Much of these efforts are expected to lead to reduction in marine plastic litter. At the same time, previous experiences from UNDP's work have shown that many stakeholders have limited capacity in developing the right indicators to track progress as well as generating the data needed. UNDP is therefore working with universities and research institutes (through a global and a national call) to develop stakeholders' capacity through training and workshops. These activities are supported by UNDP's Small Grants Programme. An example of such indicators includes tons of plastics waste prevented, reduced and eliminated from water resources.

  Please note that certain projects of UNDP supported by the Global Environment Facility in the funding window of Chemicals and Waste include targets in terms of reduction of marine litter. This is the case of the GEF Implementing Sustainable Low and Non-Chemical Development in Small Island Developing States (ISLANDS) programme, for which UNDP implements the Indian Ocean project. For example, in Comoros, the project will support interventions that will result in an increase of at least 20% of the collection and disposal of municipal waste on the island of Anjouan, starting in project year 3. Over the full duration of the project, it is expected that 4,000 metric tonnes (MT) of marine litter will be avoided through these efforts on the island of Anjouan alone. In addition, the project will support in Comoros, Maldives, Mauritius and Seychelles the 1) (further) Implementation and enhancement of regulations/bans that will reduce/prohibit the manufacturing, import, trade and distribution of plastic bags and single use plastics; 2) Training of customs and environmental inspection agencies on the enforcement of these bans; 3) The capacity building of private sector entities to increase by 20% the collection, processing/recycling and/or export of recyclables, including plastics; and, 4) Efforts undertaken by resorts in Maldives, Mauritius and Seychelles to significantly reduce the use of plastics. In total, during the 5-year programme implementation phase, 8,000 MT of marine litter will be avoided.

The UNDP Ocean Innovation Challenge is working to address SDG 14, and in the first call SDG 14.1 with the associated indicators to reduce Indicator 14.1.1 is the index of coastal eutrophication and floating plastic debris density: SDG Indicators Metadata Repository. As each innovation is unique, indicators are tailored by the specific innovation. For example, the Global Plastic Policy Database looks at both the number of policies collected and reviewed, and the number of times the database is accessed and materials downloaded. For Fortuna Cools, the volume of polystyrene insulation replaced by coconut husk based insulation. For the Comoros' buy-back center, the volume of plastic collected by the buy-back center annually. For OneSea in Costa Rica, the amount of shoreline without cigarette butts, and the number of legal actions adopted and enforced by the parliament. For Forum for the Future the measures recommended to the textile industry amount of potential microplastics shedding reduced in the milling process. For the Maldives Extended Producer Responsibility, the amount plastic wastes cataloged, import data collected, and laws passed to require EPR adoption.

WEF GPAP

- Building consensus on consistent approaches for measuring plastic waste and pollution is essential for monitoring progress. Three of our national partners - Indonesia, Ghana and Viet Nam – have conducted rigorous baseline assessments and projections, giving their governments clear evidence on which to act. In aid of these measurement efforts, we're working with partners and experts to encourage greater integration between established tools and methodologies. We're also upgrading our approach to baseline analysis so that governments, industry and civil society can conduct assessments and projections more independently. The National Plastic Action Partnerships also set up national metrics task forces to advance country-level efforts related to plastic flow data collection, harmonization and analysis.

3. Measures and Achievements

Popular measures to combat MPL include reducing single-use plastic, conducting clean-up activities along rivers and coasts, creating multi-stakeholder partnerships, promoting innovative solutions, sharing scientific information and knowledge, and improving a waste management recycling system. More than 30 countries are taking such measures.

Acting on fishing gear and participating in international cooperation are popular in 28 and 29 countries respectively. Extended producer responsibility (EPR) policies are in place in 26 countries.

Among regions targeted by many international cooperation projects, 18 countries have initiatives/projects implemented in Southeast Asia, 13 countries have initiatives in Latin America, and 11 countries have initiatives in Africa.

Actions on microplastics are undertaken by 13 countries and installing traps or fillers to collect plastic are undertaken by 19 countries. Countries are initiating various upstream and downstream measures against marine plastic pollution.

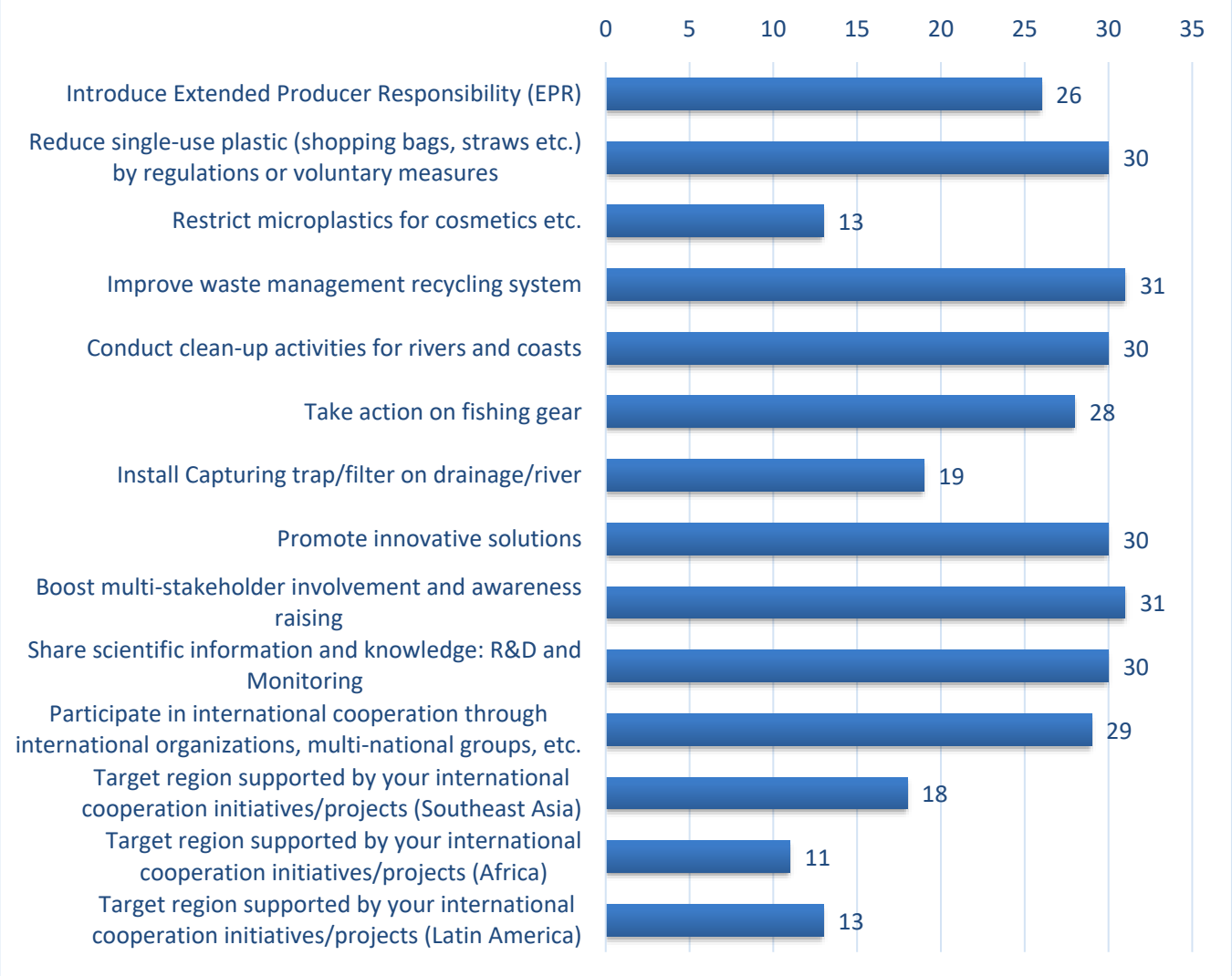

Figure 3: Countries - Measures and Achievements*

*Number of countries responded YES among 33 responses

3.1. Prevention and Reduction of Plastic Waste Generation

Twenty-five countries have implemented measures to restrict single-use plastics by charging shopping bags and straws, and 20 countries replied that the above measure resulted in a positive trend. 27 countries have initiated actions to encourage sustainable or circular product design to reduce plastic waste generation and 14 countries stated positive impressions. Regulations on microplastics were reported by 15 countries and nine countries reported positive trend perception.

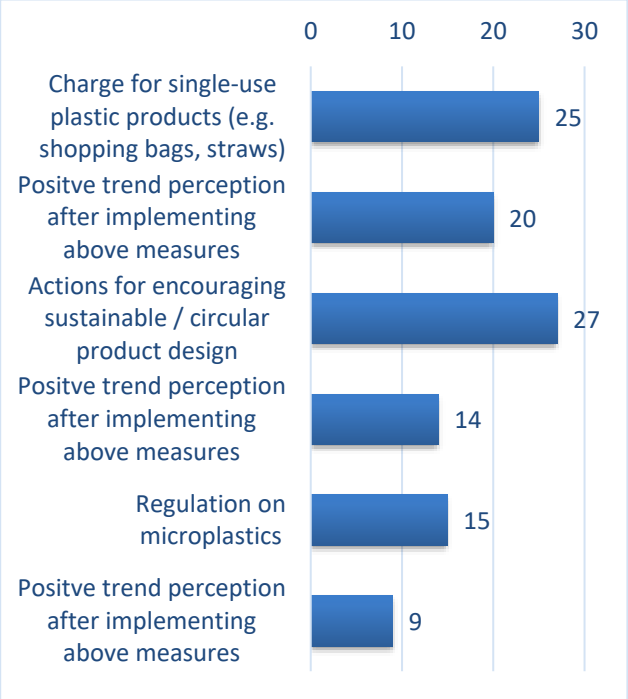

Figure 4: Countries - Prevention and Reduction of Plastic Waste Generation*

*Number of countries responded YES among 33 responses

Countries

Australia

Charge for single-use plastic products

- 2021 National Plastics Plan – Phase outs

  The National Plastics Plan includes actions for industry to phase out certain problematic plastics informed by the Australian Packaging Covenant Organisation's consultation with industry and governments. These include:

  - Phase out non compostable plastic packaging products containing additive fragmentable technology that do not meet relevant compostable standards (AS4736-2006, AS5810-2010) (July 2022)
  - Phase out expanded polystyrene (EPS) in loose fill and moulded consumer packaging (July 2022), and consumer food and beverage containers (December 2022)
  - Phase out PVC packaging labels (December 2022)

  To provide greater clarity to industry, on 15 April 2021 Environment Ministers identified eight problematic and unnecessary single-use plastic product types for industry to phase out nationally by 2025 (or sooner in some cases) under the National Waste Policy Action Plan. The list includes:

  - Lightweight shopping bags
  - "Degradable" plastics (fragmentable/oxo-degradable)
  - Plastic straws
  - Plastic utensils and stirrers
  - Plastic bowls and plates
  - Expanded polystyrene (EPS) consumer food containers (e.g. cups and clamshells)
  - EPS consumer goods packaging (loose fill and moulded)
  - PVC labels

Achievements

- All states and territories in Australia now have planned or existing regulations in effect to phase out problematic single use plastics.
- An industry working group led by the Australian Packaging Covenant Organisation (APCO), is preparing a roadmap that will prioritise Expanded Polystyrene applications for phase out
- APCO is making progress against the National Packaging Target for 100% of all Australia's packaging to be reusable, recyclable, or compostable by 2025 or earlier. As of 2019-20, 86% of Australia's packaging is reusable, recyclable or compostable.

Actions for encouraging sustainable / circular product design

- Australian Circular Economy Hub and Marketplace

  The Australian Government has invested AU$1.6 million through the Environment Restoration Fund to help establish an Australian Circular Economy Hub and Marketplace by end of 2021, designed to be a one-stop-shop for circular economy inspiration, education and implementation in Australia.

- Recycling Modernisation Fund

  The $190 million Recycling Modernisation Fund is supporting innovative investment in new infrastructure to sort, process and remanufacture waste materials covered by the export ban (glass, plastics and tyres). An additional $60 million for Advanced Recycling technologies was announced in March 2022.

- CSIRO Ending Plastic Waste Mission

  CSIRO's Ending Plastic Waste Mission aims to drive Australia's circular economy and create systemic change through data science, materials and manufacturing, recycling processes and whole of life, circular solutions to reduce plastic pollution entering the environment.

- National Packaging Targets

  Established in 2018, the 2025 National Packaging targets are driving systemic change to the way Australia designs, collects, and recovers product packaging, and are an important step in transitioning Australia to a circular economy for packaging. The first Target aims for 100% of packaging being reusable, recyclable or compostable, requiring businesses to design packaging which achieves this outcom.

- Australian Packaging Covenant Organisation Sustainable Packaging Guidelines

  The Sustainable Packaging Guidelines are a comprehensive, publicly available resource to assist in the sustainable design and manufacture of packaging in Australia. The Guidelines support Australian organisations to integrate ten Sustainable Packaging Principles into their operations. These Principles have been designed to optimise outcomes for packaging functionality and sustainability, and to help collectively deliver Australia's 2025 National Packaging Targets.

- Product Stewardship Centre of Excellence

  The Product Stewardship Centre of Excellence was launched in March 2021 to drive industry-led product stewardship action and support businesses to manage the environmental impacts of their products, including through improved product design. It is funded through the National Product Stewardship Investment Fund.

- Report commissioned on enabling design for environmental good

  The Department commissioned the 'Enabling design for environmental good' report. Led by the Royal Melbourne Institute of Technology, this project is exploring opportunities to embed better environmental decisions at the design stage. It is due for completion by the end of 2022.

- National Standards for the use of recycled plastic in roads

  National guidance and a specification for the use of recycled plastic is being developed by Austroads. The specification for recycled plastic is being delivered through three reports, with the first two reports delivered in April and September 2021. Part A of the third report was delivered in May 2022 and provides information that can be built into the procurement processes by road agencies to facilitate the increased use of recycled plastics in infrastructure. Part B is currently being prepared and will include the final assessment around the future recyclability of plastic asphalt. To support local councils while the national specification is being delivered, Austroads released Interim Guidelines for the Use of Recycled Waste Plastic in Local Government Road Surfacing Applications in July 2021.

Achievements

- Positive improvement
- Numerical data
  - The 92 projects currently funded through the RMF are expected to generate over 1,189,096 million tonnes of additional capacity. This includes 263,000 tonnes of plastics. Under the National Product Stewardship Investment Fund, $16.6 million has been invested to support the establishment or expansion of 21 Product Stewardship Schemes.
  - As of July 2022, the ARL has reached a milestone of 250,000 Stock Keeping Units (SKU) on pack in Australia and 80,000 SKUs in New Zealand.
  - As of 2019-20, 86% of packaging is 100% of all Australia's packaging will be reusable, recyclable or compostable by 2025 or earlier.

Regulation on microplastics

- Industry-led phase-out of microbeads in rinse-off personal care, cosmetic and cleaning products sold in Australia

  A 2020 independent assessment of the voluntary industry-led phase-out of microbeads in rinse-off personal care, cosmetic and cleaning products sold in Australia revealed that 99.3% of the targeted products were microbead free.

Achievements

- Positive improvement - The industry-led phaseout has been successful.
- Numerical data - The assessment found that:
  - 99.3% of relevant products are now microbead-free (based on sample of 8100 unique products inspected)
  - For the 0.7 per cent of products containing microbeads, facial scrubs, facial cleansers, and face masks were the most common product types using microbeads as an ingredient.
  - There were no microbeads present in cleaning products or in oral hygiene products surveyed, such as mouthwash and toothpaste.

Others

- EPR

  The Australian Government introduced a number of measures to encourage voluntary industry uptake of product stewardship schemes. This includes through Government accreditation of voluntary product stewardship arrangements, funding to support the development or expansion of voluntary product stewardship schemes and establishing a Product Stewardship Centre of Excellence (through the National Product Stewardship Investment Fund); and a Minister's Product Stewardship Priority List, which signals to industry that action is expected to improve product stewardship outcomes for a particular product or material. The Minister may decide to implement regulatory measures where adequate industry action has not been taken.

  Product Stewardship schemes already in place are outlined online at:

  https://www.dcceew.gov.au/environment/protection/waste/product-stewardship/products-schemes

Brazil

Charge for single-use plastic products

- Sector Agreement for Reverse Logistics System for Packaging

  This Sector Agreement has been implemented since 2015. It aims to ensure the environmentally appropriate final destination of packaging in general. Through this agreement with Ministry of the Environment, manufacturers, importers, traders and distributors of packaging and products sold in packaging commit to working together to ensure the environmentally friendly final destination of the packaging they place on the market.

  The packaging can be composed of paper and cardboard, plastic, aluminum, steel, glass, or even a combination of these materials, such as long-life carton packaging, for example.

  The agreement includes support for cooperatives of recyclable material collectors and partnerships with commerce for the installation of voluntary delivery points. It also presents the possibility of entering into agreements between public services for urban cleaning and municipal solid waste management and the signatory entities.

Achievements

- Positive improvement - In its initial phase, the system's actions were concentrated in the cities and metropolitan regions of Belo Horizonte, Cuiabá, Curitiba, Distrito Federal, Fortaleza, Manaus, Natal, Porto Alegre, Recife, Rio de Janeiro, Salvador and São Paulo.

- Numerical data –

  Main result:

  - Collection Points (2020):
    374 municipalities served with collection points in 26 states + Federal District
  - Recovered packaging in tons (2020):
    123,256 of Paper/cardboard;
    58,498 of glass;
    54,246 plastic;
    13,916 of steel;
    6.162 Aluminum.
    Source: Coalition Packaging (https://www.coalizaoembalagens.com.br/logistica-reversa/)

Actions for encouraging sustainable / circular product design

- "Income for waste pickers" project

  The pilot project "Income for Waste Pickers" aims to promote greater added value to the income of plastic waste pickers in urban centers, through the improvement of a large part of the waste collected. The pickers' associations will have access to training, administrative support, and donated machinery, which in a second phase may provide new businesses modelling for that kind of workers. The project will promote the recycling production chain and help to create a support network for that and other projects, with learning exchanges, circular economy and, consequently, the combat against waste into the sea. More detail about this project, see item 3.4.1.

  The initiative is within the scope of the TerraMar Project, see item 5.4.

Canada

Charge for single-use plastic products

- Canada's comprehensive zero plastic waste agenda
- Single-use Plastics Prohibition Regulations
- Targeted products:

  Single-use plastic checkout bags, cutlery, foodservice ware made from or containing problematic plastics, ring carriers, stir sticks, and straws (with exceptions).

  The items were deemed to be prevalent in the environment, pose a threat of harm (e.g., to wildlife and their habitat), difficult to recycle, and have readily available viable alternatives.

  On June 22, 2022, the Government of Canada Single-use Plastics Prohibition Regulations, which prohibit the manufacture, import and sale of the six single-use plastic items identified above. An exception to the Regulations will allow single-use plastic flexible straws to remain available for sale in stores, under certain conditions, for people who need them.

  https://laws-lois.justice.gc.ca/eng/regulations/SOR-2022-138/index.html

At the sub-national level, a range of tools are in place to eliminate or reduce single-use plastics, including: extended producer responsibility programs for packaging, take-back programs, access to curbside and depot recycling programs, and bans or levies on single-use plastics. Canadian companies have also implemented consumer fees for plastic carrier bags and eliminated the use of certain plastics; switched to alternatives; or provided rebates for reusable containers.

Achievements

Not any particular trend - The Single-use Plastics Prohibition Regulations will be implemented on a staggered timeline, beginning December 20, 2022. As such, it is too early to accurately measure the performance of the Regulations.

https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/reduce-plastic-waste/single-use-plastic-overview.html#toc2

Over the next decade, this ban will result in the estimated elimination of over 1.3 million tonnes of hard-to-recycle plastic waste and more than 22,000 tonnes of plastic pollution, which is equivalent to over a million garbage bags full of litter.

Actions for encouraging sustainable / circular product design

- Canada's comprehensive zero plastic waste agenda
- National product standards
- Greening operations and procurement
- Canadian Plastics Innovation Challenges
- Extended producer responsibility programs
- Value-retention processes

Canada's comprehensive agenda to reduce plastic waste and pollution embraces a resource efficient and circular economy approach to address the entire plastics value chain. This includes activities that help to prevent and reduce plastic generation such as:

- proposed requirements for at least 50% recycled content in plastic packaging by 2030;
- establishing a recycling target for plastic beverage containers;
- introducing labelling rules for recyclability and compostability;
- reducing plastic waste from federal operations, by diverting 75% of plastic waste by 2030; eliminating unnecessary use of single-use plastics; and, purchasing more sustainable products;
- investing in innovation through the Canadian Plastics Innovation Challenges; and,
- working with and supporting industry to improve product design and the recovery of all plastics.

The Government of Canada is also developing a national strategy to encourage the remanufacturing of products and other value-retention processes such as refurbishment, repair and reuse. To help inform the strategy, Canada published the Socio-Economic and Environmental Study on Remanufacturing and Other Value-Retention Processes in Canada (2021), which provides baseline data on value-retention processes in Canada and evaluates the benefits, challenges and opportunities of increasing them.

https://publications.gc.ca/site/eng/9.900569/publication.html

The federal, provincial and territorial governments are also working together to:

- Achieve consistent extended producer responsibility programs across Canada;
- Develop a roadmap to address single-use and disposable plastics;
- Establish national performance requirements for plastic products and packaging (e.g. standards for recycled content and bio-based plastics);
- Support recycling infrastructure and innovation in plastics manufacturing;
- Develop a roadmap that identifies sectors for strengthened value retention processes; and,
- Develop guidelines and tools for green procurement practices.

https://ccme.ca/en/current-activities/waste

Achievements

- Positive improvement

Since 2018, through the Zero Plastic Waste Initiative, 15 industry and non-profit organizations have received over CA $3.2 million to advance innovative and sector specific solutions that improve the sustainable design and production of plastics, strengthen secondary markets and support Canada's transition to a circular plastics economy.

Canadian Plastics Innovation Challenges presented in section 3.4.

Regulation on microplastics

- Canada's comprehensive zero plastic waste agenda

https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/reduce-plastic-waste/canada-action.html

- Microbeads in Toiletries Regulations

https://laws-lois.justice.gc.ca/eng/regulations/SOR-2017-111/page-1.html

- Listing microbeads on Schedule 1 to the Canadian Environmental Protection Act

- Listing plastic manufactured items on Schedule 1 to the Canadian Environmental Protection Act

  In June 2017, the Government of Canada published the Microbeads in Toiletries Regulations, listing microbeads on Schedule 1 to the Canadian Environmental Protection Act, 1999 (CEPA). The regulations prohibit the manufacture, import, and sale of toiletries used to exfoliate or cleanse that contain plastic microbeads, including non-prescription drugs and natural health products, starting January 1, 2018 with a complete ban as of July 2019.

  In May 2021, “plastic manufactured items” was added to Schedule 1 to CEPA. This means that the Government of Canada has the authorities to use CEPA to enact regulations and other risk management tools to change behaviour at key stages in the lifecycle of plastic products and create the conditions for achieving a circular plastics economy and to reduce plastic pollution, including microplastics.

Achievements

Positive improvement - As of July 2019, the manufacture, import and sale of all toiletries that contain plastic microbeads, including non-prescription drugs and natural health are prohibited in Canada. The Microbeads in Toiletries regulations help protect the environment by reducing the quantity of plastic microbeads entering Canadian aquatic ecosystems.

Chile

Charge for single-use plastic products

- A law which prohibits the delivery of plastic bags by commerce
- A law which regulates single used plastics
- Regulation on EPR for packaging

  Targeted products:

  - Plastic bags
  - Single used plastics
  - Plastic packaging and containers

  Chile has implemented several plans, policies and programs to prevent the generation of plastic waste and to increase its recycling, including campaigns to prevent the use of single used plastics

Achievements

- Positive improvement
- Numerical data - The Ministry of the Environment estimates that in Chile the use of 11,500 million plastic bags has been avoided, which is equivalent to 84,525 tons of plastic.

Actions for encouraging sustainable / circular product design

In 2021 Chile adopted a National Roadmap to the Circular Economy 2020-2040, which serves as the basis for promoting a transition towards the "Circular Chile" of the future through 4 lines of action: Innovation, regulation, culture and territories.

China

Charge for single-use plastic products

- Opinions on Further Strengthening Plastic Pollution Control

  Targeted products:

  Plastic bags, foam plastic tableware, plastic cotton swabs, and so on.

  By the end of 2020, non-degradable single-use plastic straws had been banned in restaurants nationwide; non-degradable single-use plastic tableware had been prohibited for catering services in built-up areas and scenic spots in cities above the prefecture level; by the end of 2022, the use of non-degradable single-use plastic tableware will be prohibited for catering services in built-up areas and scenic spots in county towns; by 2025, the consumption of non-degradable single-use plastic tableware for restaurants and delivery will be reduced by 30% in cities above the prefecture level.

Achievements

Positive improvement

Actions for encouraging sustainable / circular product design

- Opinions on Further Strengthening Plastic Pollution Control

  Plastic manufacturers shall strictly implement national laws and regulations, enable their plastic products to meet national standards, and shall not illegally add chemical additives that are harmful to the human body and environment. Green designs are encouraged to improve the safety and recycling of plastic products. Moreover, new green and environmentally friendly materials are also encouraged, the use of recycled plastics that meet quality control standards and use control requirements will increase, and the research and development of recyclable, easily recyclable, and degradable alternative materials and products will be strengthened.

  At the same time, the standardization, centralization, and industrialization of the resource utilization of plastic waste will be promoted, and related projects will be concentrated in resource recycling bases and other parks to improve the level of transforming plastic waste into resources. Plastic waste with high sorting costs which is unsuitable for resource utilization, will be promoted for energy utilization. The operation and management of enterprises would be strengthened to ensure the stable and up-to-standard discharge of various pollutants and minimize the amount of plastic waste that are directly landfilled.

- Development of Circular Economy Plan (2021-2025)

  Under the plan, the circular economy — a model focusing on recycling, reusing and repairing raw materials and resources — will be a national priority during the 14th Five-Year Plan period. By 2025, a resource recycling industry system will be basically established and a resource recycling system covering the entire society will be basically completed. By then, resource utilization efficiency will be substantially improved, and the replacement of primary resources by renewable resources will be further increased.

According to the plan, China is expected to roll out up to 11 key projects or actions, including the Action on Whole-Chain Treatment of Plastic Pollution, which aims to prevent and reduce plastic waste generation.

- Plastic Pollution Control Action Plan (2021-2025)

  Green design of plastic products will be actively expanded. With the focus on disposable plastic products, relevant standards for green design will be formulated, product structure design will be optimized, the complexity of product material design will be reduced, and the recyclability of plastic products will be improved. Such products that harm the environment and human health will be banned as ultra-thin plastic shopping bags with a thickness of less than 0.025 mm, polyethylene agricultural mulch films with a thickness of less than 0.01 mm, and daily chemical products containing plastic microbeads.

Achievements

Positive improvement

Regulation on microplastics

- Opinions on Further Strengthening Plastic Pollution Control

  By the end of 2020, the production of daily chemical products containing plastic microbeads had been prohibited; by the end of 2022, the sale of daily chemical products containing plastic microbeads will be prohibited.

  Researches on the pollution mechanism, monitoring, prevention, and control technologies and policies of plastic wastes and microplastics in rivers, lakes, and seas will be strengthened, and the assessment on ecological environmental impacts and human health risks caused by microplastics will be carried out in the coming years.

- Action Plan on Plastic Pollution Control (2021-2025)

  It is forbidden to produce ultra-thin plastic shopping bags with thickness less than 0.025mm, polyethylene agricultural film with thickness less than 0.01mm, daily chemical products containing plastic beads and other products that are harm to the environment and human health

- Marine Ecological Environment Protection Plan (2021-2025)

  Monitoring and investigation of marine plastic waste and microplastics will be carried out. Research on the pollution mechanism, and technology of controlling marine plastic waste and microplastic will be organized.

Achievements

Positive improvement

Colombia

Charge for single-use plastic products

Achievements

Positive improvement

Actions for encouraging sustainable / circular product design

- National Development Plan 2018-2022 "Pact for Colombia, Pact for Equity"

  The National Development Plan 2018-2022 "Pact for Colombia, Pact for Equity", of the Government of President Iván Duque Márquez introduces, with the National Circular Economy Strategy, new elements to strengthen the economic, environmental and social development model of the country, based on the logic of "producing by conserving and conserving by producing".

- National Circular Economy Strategy- ENEC

  The Ministry of Environment and Sustainable Development, with the support of the public and private sector, the academic sector and research centers, committed to sustainable development, the quality of life of the population and future generations, the diversification of market access opportunities and increasingly demanding consumers, signed the National Pact for the Circular Economy on November 14, 2018, and presented the "National Circular Economy Strategy- ENEC" as an instrument that provides substantial elements to advance the growth and pluralization of economic sectors, which conceive environmental and social considerations as an integral part of the country's development.

Regulation on microplastics

Achievements

Positive improvement

Costa Rica

Charge for single-use plastic products

Action Plan of the National Marine Residues Plan and parallel projects that are part of the National Plan

The action plan is at the beginning of its execution and parallel projects that are responding to concerns contemplated in the diagnosis of the National Plan.

Achievements

Positive improvement - The implementation of actions contemplated in the national marine residues plan is just beginning. Other initiatives parallel to the plan (on marine residues management and fishermen), are developed in two fishing sectors of the Central Pacific (Puntarenas, Tarcoles and Puerto Níspero) and north Pacific (Guanacaste) (it is in the diagnostic phase). In the Caribbean, a marine waste management process is being developed in three communities (Tortuguero, Cieneguita and Puerto Viejo).

At the moment, the diagnostic findings and the exchanges of knowledge with the population have given a tangible product such as the Methodological Guide for the Recovery of Waste at Beach. A first product related to the sea was produced at the end of 2021, called Inventory of marine residues from the fishing sector of the Golfo Dulce, Puntarenas, Costa Rica.

Actions for encouraging sustainable / circular product design

Achievements

Positive improvement - Within the framework of the implementation of the Single-Use Plastic Strategy, a study of the economic and social feasibility for conventional plastic substitutes has been carried out as well as an inventory of biofibers in Costa Rica as potential raw materials for the production of single-use products. Although there are at least three companies that are producing with these natural biomasses, it can be said that it is in a diagnostic phase and many of the plastic substitutes are imported.

Regulation on microplastics

- Law No. 9786 to combat plastic pollution and protect the environment (November 17, 2019).

  Prohibits the marketing and free delivery of plastic bottles, plastic bags and straws.

- Law 9703 of July 15, 2019, "Law for the prohibition of expanded polystyrene".

  Prohibits the import into the national territory, the commercialization and delivery of containers of expanded polystyrene in any commercial establishment.

- "Law for the Integral Management of Waste" and its regulations, Executive Decree Number 42833.

  Establishes the general conditions to regulate residues issues in the country.

- Guideline SINAC-DE-944-2020 that began to take effect from February 25, 2021.

  Prohibits the entry of single-use plastics in national parks and biological reserves.

- Guideline DGABCA-0002-2018, so that the institutions and bodies of the central administration do not include in their purchase processes, single-use plastic.

  Prohibits the purchase by the government of single-use items (plates, glasses, forks, knives, spoons, straws and disposable removers and others used mainly for the consumption of food).

- Guideline No.014, published by the Executive Branch in July 2018.

  This executive guideline is aimed at public sector institutions for the regulation of the use and consumption of single-use plastic and the design of labeling in plastic substitute products.

Achievements

Positive improvement - The country has a residues policy, national residues plan and a comprehensive residues management law that establishes general regulations, compliance conditions and responsibilities. Regulations related to single-use plastic and expanded polystyrene are recently being adopted. Regarding microplastics, research has only been carried out on Pacific beaches to verify existing microplastics, types and quantities per square meter of beach.

Fiji

Charge for single-use plastic products

- The import of plastic bags (made up of whole or part polyethylene) less than 50 microns has been banned.
- Charges range from 10-50 cents on a plastic bags >50 microns at check-out counters in supermarkets.

  Targeted products: Polystyrene products (containers, cups, plates, and trays)

  Since January 1, 2021, the import/export of polystyrene (Styrofoam) containers, cups, plates, and trays have been banned. Further to this, from August 2021, the manufacture, sale, supply and distribution of all polystyrene containers, cups, plates, and trays have been stopped.

- Polystyrene ban

  Plastic bags of thickness >50 microns are charged between 10 cents-50 cents and used as check-out bags in markets are locally manufactured.

Achievements

Positive improvement

Actions for encouraging sustainable / circular product design

- Zero Waste Ambition Pledge by businesses
- Recycling on the Go (ROG) Programme with Schools
- Recognizing Recycling Heroes
- Launching of the 7R Policy by the Ministry of Environment.
- Outreach programmes on the 3Rs.(Reuse, Recycling, Reduce)
- Zero plastic pledge by commercial facilities
- Community advocacy and awareness programmes.

Achievements

Positive improvement

France

Charge for single-use plastic products

- Progressive ban of some single use plastic products and reinforcement of extended producer responsibility schemes and development new ones
  - Targeted products: plastic bags, plastic packaging, plastic bottles, cups, cutlery, plates, containers, expanded polystyrene…

  The legislation for energy transition for green growth (2015) sets up the prohibition of non-compostable plastic bags since 2017;

  The legislation against waste and for a circular economy progressively forbids the sale and use of certain plastic items, it forbids the single-use plastic items listed in the European directive as well as cotton-bud and microbeads;

  The legislation against waste and for a circular economy creates 11 new EPR schemes and extend existing ones. (straws, expanded polystyrene boxes, plastic confettis, etc.);

  Following the plan of the legislation against waste and for a circular economy, in 2022, the plastic overpackaging of fruits and vegetables weighing less than 1.5 kg is prohibited same as plastic tea bags and fast-food toys made of plastic.

Achievements

- Positive improvement
- Numerical data
  - Plastic bags have been forbidden and are less found in the environment.
  - We cannot deduce any trends as to the presence of single-use items general in the environment yet. However, in 2020, single-use plastic items represented 19% of the litter collected during litter with a median of de 77 SUP/100meter. In 2021, the median was of 37 SUP/100m.

Actions for encouraging sustainable / circular product design

- Establishment of a roadmap for circular economy (100% of plastics to be recycled in 2025, with targets for a better collection of plastics, targets for a better recyclability of plastic products, etc.), and a study of a nation-wide deposit system for plastic bottles and other beverage containers

  Introduction of a definition of bulk selling in the national legislation and creation of an obligation for shops with a surface area of more than 400 meters to make reusable containers available to consumers;

- Definition of standard ranges of reusable packaging for the catering sector, as well as for fresh products and drinks;
- Allocation of at least 2% of the annual packaging extended producer responsibility organization contribution to the development of solutions for the reuse of packaging (implementation in 2022);
- Modulation of the financial contributions paid by producers to EPR organizations according to environmental performance criteria, including the possibility of reuse;
- Improvement of consumer information on the possibilities of re-use (implementation in 2022).
- Multiple studies have been ordered to research centers. For instance: “Reuse of packaging and alternatives to single-use plastic packaging” or “Development of a methodological framework for comparative LCA of alternatives to single-use plastic packaging”

Achievements

- Positive improvement
- Numerical data

  A study from ADEME noted that: “Since 2013, the bulk retail sector has experienced considerable growth in the consumer products market consumer goods market. From a turnover of 100 million euros excluding tax in 2013, the sector has grown to 1.2 billion euros in 2019, a 12-fold increase in 6 years. The franchised network of bulk grocery stores Day by Day forecasts a turnover of 3.2 billion excluding VAT in 2027 and 8,000 points of sale in 2040 (all channels combined).”

Regulation on microplastics

- The law of February 10 2020 relative to the fight against waste and the economy circular foresee that sites of production, manipulation (the sites industrial using granules plastic in their processes of production) and transport (platforms logistics, ports maritime and river) granules of plastics industrial be endowed of equipment and procedures to prevent the loss and leaks granules of plastics industrial that represent a part microplastics susceptible to be found in the environment.

  It also foresees setting the implementation of regular Inspections by independent-certified organizations. The terms of implementation are precised in the Decree n°2021-461 of 16 April 2021 relative to the prevention of losses of granules of industrial plastics in the environment

- Participation to European REACH regulation

  France contributes to European negotiations to prevent microplastics in products (REACH regulation)

- To prepare potential regulation and actions, France is studying methodologies for monitoring microplastics in rivers, sewage and beach sediments.

Achievements

Not any particular trend - We have not assessed yet the impact of these actions.

Preliminary results obtained during the monitoring of microlitter on the French coastline indicated that more that 40% of microplastics with a size 1-5mm found are pre-production pellets.

Germany

Charge for single-use plastic products

- Amendment of the Packaging Act

  Targeted products: plastic bags with a thickness between 15- 50 micrometers

  From 1.1.2022, the use of plastic bags with a thickness between 15- 50 micrometers is forbidden by law.

Achievements

Positive improvement

Actions for encouraging sustainable / circular product design

- Amendment of the Packaging Act
  - A mandatory minimum use of recyclates for certain single-use plastic beverage bottles from 2025
  - an obligation to offer reusable packaging alternatives for single-use plastic food packaging and single-use beverage cups from 2023
  - An extension of the compulsory deposit to almost all single-use plastic beverage bottles and all beverage cans from 2022

Others

The German national ecolabel “Blue Angel” is currently working on criteria for artificial grass pitches without microplastic releasing infill. The criteria will be of special interest for green public procurement of cities / communes.

Indonesia

Charge for single-use plastic products

Local government regulation

Local government regulation on charging shopping bags

Achievements

Positive improvement – Increasing of retails which not provide plastic bags

Actions for encouraging sustainable / circular product design

- Prohibit and phase out some single-use plastics such plastic shopping bag, plastic straw, plastic foam container, and plastic cutlery

  Regulated by Ministerial Regulation No. P.75/2019 concerning waste reduction roadmap by the Producer, we are going to phase out the use of several single-use plastics items mentioned above by December 2029.

  This regulation obliges the Producer to redesign their packaging easier to compost, to recycle, and to reuse.

Achievements

Positive improvement

Others

- Indonesia has regulation on marine water quality standard which includes marine litter as one of the parameter.

Italy

Charge for single-use plastic products

- Transposition of DIRECTIVE 2019/904/EC in Italian D.Lgs 196/2021.

  Targeted products: single use plastic

  The objectives of this Directive are to reduce the impact of certain plastic products to promote the transition to a circular economy
  - bans the use of a large part of single use plastics on the market;
  - from 2030, beverage bottles must contain at least 30 % recycled plastic;
  - by 2025 the 77% of plastic bottles will have to be recycled;
  - introduce extended producer responsibility for fishing gear and components of fishing gear containing plastic to ensure separate collection of waste fishing gear and recycling.

Achievements

Not any particular trend - Italy has transposed the Directive in 2021, for this reason it is not possible to see any trend of change.

Actions for encouraging sustainable / circular product design

- Programme of measures according to Article 13 of the MSFD (2021)
  - Study, design and creation of a supply chain for fish boxes to facilitate the transition from the use of disposable polystyrene boxes to washable and reusable ones.
  - Study, design and creation of the marine litter recycling chain.
  - Study, design and creation of a collection and disposal chain for litter collected accidentally by fishermen: "Preparation of a regulatory tool for the implementation of a collection and disposal chain for litter accidentally collected by fishermen, in implementation of Directive 83/2019.
- Law. 60/2022. SALVAMARE.

  Provision for the recovery of litter at sea and in inland waters and for the promotion of the circular economy.
- National Strategy for Circular Economy

  Policy targets by 2035:
  - Introduction of binding eco design specifications.
  - Promotion of eco innovation as a tool of competitiveness e sustainability and identification of tools to develop opportunities for eco innovation in the context of the circular economy;
  - Promotion of technologies and methodologies for the use and efficient product management
  - Promotion of new business models that maximize the circularity of products (e.g. models of product-as-a-service).

Achievements

Not any particular trend - Marine litter currently escapes the path of waste management plans. Both action 1 and 2 will improve the economy circularity rate that now in Italy is only of 22%.

Regulation on microplastics

- National legislative measure (2018): ban of microplastics in soaps, creams, toothpastes.

  On January 1, 2020, the ban on microplastics came into force. The law prohibits "placing on the market rinse off cosmetic products with an exfoliating or cleansing action containing microplastics". The penalties range from fines to the stop of production.

- Programme of measures according to Article 13 of the MSFD (2021).

  Design and testing of experimental prototypes for the removal of microplastics by wastewater treatment plants.

Achievements

Not any particular trend - Is not possible to see any trends after 4 years. Zero pollution Action Plan, by European Commission (2021), asks to Member State reducing microplastics released into the environment (by 30%);

Japan

Charge for single-use plastic products

- Charge for plastic shopping bags
- Reducing the use of "specified plastic-containing products"

  Targeted products:

  - Plastic shopping bags
  - Specified plastic products

  From July 2020, retailers and service providers are required to charge for plastic shopping bags.

  From April 2022, retailers and service providers who provide "specified plastic products" refers to 12 plastic items in total: forks, spoons, table knives, stir sticks, straws; hairbrushes, combs, razors, toothbrushes, shower caps; hangers and clothing covers are required to implement any initiatives (for example, giving consumers point rewards for not receiving the products, charging for their use, or offering items made from alternative materials) to reduce the amount of waste of these items.

Achievements

- Positive improvement
- Numerical data

  Estimated amount of plastic bags for domestic distribution decreased to about 100,000tons in FY2021, from about 200,000tons in FY2019.

  (Reference)

  Encyclopedia on market share of packaging materials (2021) (Japan Comprehensive Economic Research Center Co., Ltd)

Actions for encouraging sustainable / circular product design

- Enforcement of sound environmental design under the Act on Promotion of Resource Circulation for Plastics

  The government published "the Guideline for Design of Plastic-containing Products" as a way to encourage designers and manufacturers of plastic-containing products to produce environmentally friendly design. The Guideline prescribes using less plastic, reducing excessive packaging, designing products that are easy to disassemble and separate, and using recycled plastic and bio-based plastic.

Achievements

- Positive improvement
- Numerical data

  Amount of waste plastic generated (slightly decreased compared to FY2018)

	FY2018	FY2019	FY2020	FY2021
Plastic Generated (kt)	8,610	8,500	8,220	under investigation

  (Reference)

  "The status of production, disposal, recycling and treatment of plastic products" (Plastic Waste Management Institute JAPAN)

Mexico

Charge for single-use plastic products

Single use plastic products prohibition

Achievements

Positive improvement

Actions for encouraging sustainable / circular product design

General Law of Circular Economy Initiative.

Achievements

Not any particular trend

Regulation on microplastics

There are no regulations on the issue of microplastics at the federal level. Regarding state legislation, Mexico City prohibits the commercialization, distribution and delivery of products that contain intentionally added microplastics (Solid Waste Law), however its application and verification has not been defined.

Myanmar

Others

- Myanmar National Waste Management Strategy and Action Plan for Myanmar for 2018-2030 lists plastic as one of the priority waste streams and generally promotes a 3Rs (reduce, reuse and recycle) approach.
- With the World Bank's technical assistance under the Regional Marine Plastics Framework and Action Plan through PROBLUE Trust Fund, plastics policy options and a roadmap (draft) have been developed through the survey and assessment of product alternatives for the top 10 priority plastic items leaking into the environment in Myanmar, which will be included in the national plastic action plan. It identified 14 policy options and grouped them into short-term, mid-term, and long-term measures.
- State and Regional Plastic Waste Management Plans have developed by State and Region Environmental Conservation Department staff with the cooperation of other relevant departments and stakeholders.

Netherlands

Charge for single-use plastic products

- Implementation of the EU SUP directive

  Single-use plastics (europa.eu)

  Targeted products: Ban on single use plastic plates, cutlery, cotton buds, balloon sticks.

Achievements

Positive improvement - For the ban on free shopping bags a significant reduction can be seen both in the self-reported use of plastic shopping bags, but also in the litter.

Too early to have robust data indicating a trend on the ban of plates, cutlery, cotton buds and balloon sticks.

Actions for encouraging sustainable / circular product design

- Contribution to EU policy on sustainable products

  In various consultations NL has pushed for an ambitious EU Sustainable Products Initiative, to be published late 2021, to set strong incentives for sustainable products on the EU market.

  See also Annex on SPI enclosed

Regulation on microplastics

- REACH Restriction on intentionally added microplastics at EU level and a national policy programme on micro plastics

  The EU works on a restriction to ban intentionally added micro plastics from products in the EU zone

  Policy programme to tackle the biggest sources of micro plastics in the Netherlands (litter, tyres, paint, pellets/nurdles)

Achievements

Not any particular trend

Norway

Charge for single-use plastic products

- Norway uses several measures to reduce use the environmental impact of single-use plastic products to the environment, most importantly through implementation of relevant EU-directives. This includes obligations through the EU directive to reduce the use of plastic carrier bags.
  - Reduce plastic pollution
  - Increase plastic recycling
  - Reduce consumption of plastic bags

Achievements

Positive improvement - Some of the measures are recently implemented and yet to show the acquired results.

Actions for encouraging sustainable / circular product design

- Actively involved in EU-processes on product design

  Norway, in close cooperation with the EU, will promote more sustainable plastics use and design of products that will stay for longer in the plastics value chain – striving towards a more circular economy for plastics.

- Planned Plastic Pact

  The Ministry of Climate and Environment is also considering a plastic pact with relevant business and industry actors that provide single-use plastic items/plastic packaging.

  Norway is also promoting this issue in the Basel Convention global partnership on plastic waste.

Achievements

Positive improvement

Regulation on microplastics

- EU REACH restriction on intentionally added microplastics
- EU prosess on unitentionally released microplastics
- National regulation on granular infill for artificial turfs
- IMO MEPC – listing of plastic pellets

  In progress: a proposed ban of the use of intentionally added microplastics inseveral products according to ECHAs (European Chemicals Agency) restriction proposal. Still under preparation in the EU, expected decision in 2023. Will then be implemented in Norwegian law.

  In progress: The EU Commission has recently finished a public consultation on the need for measures against unintentionally released microplastics from sources such as car tyres, synthetic textiles, plastic pellets, paint, geotextiles and detergent capsules for washing machines.

  The EU is expected to present a proposal for a way forward to reduce emissions from such sources by the end of 2022.

From July 2021 we have a new national regulation to reduce microplastics emissions from artificial turfs. Norway has also advocated regulations to reduce microplastic emissions from textiles in relation to washing machines under the EUs Eco-design Directive.

Norway with cosponsors has presented a proposal for decision under IMO MEPC on listing plastic pellets in the same category as environmental toxicants, which will result in stricter preventive measure during transport of plastic pellets by ships.

Norway has conducted studies on microplastic release from ship paints during docking and in sea, which shows that self-polishing paint is the most significant contributor. The study is to be translated to English. We have also conducted a pilot study on methods to clean the hulls of leisure boats in marinas instead of using paint. Regulations on pollution from leisure boat marinas is under consideration.

Achievements

Positive improvement - Improvement in regulation, but no data on use and discharges to the environment

Oman

Charge for single-use plastic products

- Ministerial Resolution 23/2020

  Oman has ban on using the single use plastic to conserve the Omani environment.

  Targeted products: The plastic bags used in the markets, fish markets and in all parks, coffee shops and restaurants and even between the public.

Regulation on microplastics

Achievements

Positive improvement - Environment Society of Oman in collaboration with European Union and the European Environmental Bureau share the EU experience on environmental issue, specifically the issue of plastic pollution with different groups and organizations across Oman including governmental and private sectors.

Peru

Charge for single-use plastic products

- Ban of some single-use plastics (bags, straws, disposable utensils) and implement a customer-paid tax on the use of plastic bags

  Targeted products: Single-use plastic bags, single-use plastic straws and expanded polystyrene containers for food and drinks

- The Law N°30884 does not seek to ban all types of plastic. The Law and its regulations seek that the consumption and production of single-use plastic goods migrate to reusable, recyclable or biodegradable plastic goods in order to move towards a circular economy of plastic.

- The Law N°30884, and other legislative framework prohibits the use of single-use plastic items such as single-use plastic bags, single-use plastic straws and expanded polystyrene food and drink containers.

Achievements

Positive improvement - The Ministry of the Environment (MINAM) estimated a reduction in the consumption of single-use plastic bags by 30%, in relation to the previous year, during the first year of the regulations. This statement is based on the information provided by the national manufacturers of these single-use plastics. This reduction is equivalent to an approximate one billion plastic bags that were not produced nor used.

Actions for encouraging sustainable / circular product design

- Clean Production Agreement, is a voluntary agreement between the government and private companies that encourages the use of alternatives to single-use plastics.

- Supreme Decree N°003-2020-PRODUCE called “Plan Towards a Circular Economy for the Industrial Sector”

  The Clean Production Agreement is an instrument that promotes the efficient use of materials and solid waste management. These voluntary agreements aim to introduce a set of actions that go beyond compliance with current legislation, hoping that the companies would carry out activities that reduce their impact on the environment, as well as their waste production.

  The Ministry is developing an additional policy framework to better manage single-use plastic. The new framework will establish provisions to better identify the products by introducing common terminology, symbols, packaging, marking or labeling applicable to a product, process or production method, or others.

Achievements

Positive improvement - Seventeen Clean Production Agreements were signed between the government and private companies. Seven of them have goals related to plastic management.

Regulation on microplastics

- Law N°30884 “Law that Regulates Single-Use Plastic and Disposable Containers or Containers”

  The Law, and all other legislation prohibit single-use plastic items including plastic bags, plastic straws, and plastic and expanded polystyrene food and drink containers, and those which cause contamination by microplastics or dangerous substances and are not recyclable.

Achievements

Positive improvement

Republic of Korea

Charge for single-use plastic products

- Restriction of single -use plastic products

  Targeted products: plastic bags, plastic cups and straws

  The ministry of Environment of Korea (MOE) introduced a regulation to gradually ban single-use plastic products until 2027.

Actions for encouraging sustainable / circular product design

- The 1st National Resource Circulation Plan (2018~2027)

  A long term national plan and roadmap which aims to make a transition to the circular economy were established by MOE in accordance with 'Framework act on resource circulation'.

  As an outcome of the plan, Circular economy forum was hosted by the MOE in March of 2021 with participation of multi-stakeholders to discuss environment-friendly design of plastic products as well as ways to promote recycling of home appliances and batteries.

- Korea Circular Economy Action Plan established in December 2021

  The action plan aims to introduce a set of regulations for sustainable product design (or eco-design) to be complied with by manufacturers and importers.

  Considerations to be made in eco-design include:

  - Take into account circularity in material use;
  - Improve product design to ensure they are easy-to-reuse and -recycle;
  - Enhance product durability and ensure easy-to-repair design;
  - Limit the use of toxic materials; and
  - Be mindful of carbon emissions and environmental impacts.

  Aside from the recyclability evaluation already in place, we are also scaling up the circularity evaluation program, which is to see if the above considerations are actually being made throughout the entire lifecycle of products from production, distribution to consumption.

  The program is currently applied to the product groups most widely circulated and used, and consulting services on the program are also being provided to small and medium-sized enterprises.

Achievements

Not any particular change

Regulation on microplastics

- Regulation on cosmetic products (2017)

  Regulation that ban all cosmetic products contain microplastics under 5mm was introduced in 2017 by MOE.

- Regulation on use of micro-bead (2021)

  MOE has announced the regulation to ban the use of micro-bead on all cleansing agents, detergents and removers manufactured in and outside of ROK.

Achievements

Positive improvement

Republic of Marshall Island

Charge for single-use plastic products

Styrofoam Cups and Plates, and Plastic Products Prohibition, and Container Deposit Act 2016:

Achievements

Positive improvement

Actions for encouraging sustainable / circular product design

Styrofoam cups and plates, plastic cups and plates, and plastic shopping bags: Part 2, section 503, paragraph 2 – Nothing in this Section shall prevent a person from importing, manufacturing, selling or distributing use recycled paper bags or reusable shopping bags.

Achievements

Positive improvement

Samoa

Charge for single-use plastic products

Achievements

Positive improvement - As noted above, the use of single-use plastics are banned completely under the Regulations including shopping bags, packing bags, straws and Styrofoam food containers, cups and trays.

Actions for encouraging sustainable / circular product design

Achievements

Not any particular trend - Samoa's manufacturing sector is very small, only 5.5% of Samoa's economy and includes manufacturing of food and beverages (MCIL Annual Report 2019/20 p.12). Most of the plastic found in Samoa is imported. Samoa's import data for 2019/20 accounts for 21% food; 17.4% for construction material; 8.3% motor vehicles etc.

There are a growing number of bottled water companies in Samoa including other beverages such as locally made health drinks / juices using ginger, lemon and turmeric. A decision by the Samoa Coca Cola Beverage Company to discontinue the use of glass bottles in favor of plastic bottles is cause for great concern.

At present, Samoa is finalizing its Container Deposit Levy or Container Refund Schemes.

Samoa recently launched the Circular Economy for the Recovery of Waste (CERO) Waste Programme supported by the United Nations Development Programme's COVID-19 Rapid Financing Facility, and co-funded by the Foreign, Commonwealth and Development Office, whose support has been facilitated by the British High Commission in Apia. The project is set to "create sustainable and inclusive livelihood opportunities to accelerate the transition towards a circular economy in Samoa".

Regulation on microplastics

Achievements

Positive improvement - Waste (Plastic Bag) Management Regulations 2018

Singapore

Charge for single-use plastic products

Achievements

A charge for disposable carrier bags at supermarkets will come into effect in mid-2023. The bag charge framework was developed after more than a year of extensive engagement and consultations with the industry and the public. This arose from a recommendation made by the Citizens' Workgroup on Reducing Excessive Consumption of Disposables, which was convened by the government from Sep 2020 to Jan 2021.

Actions for encouraging sustainable / circular product design

- Mandatory Packaging Reporting Framework/ Resource Sustainability Act

  To encourage businesses to minimise their contribution to plastic waste, Singapore's National Environment Agency (NEA) will require businesses that place packaging on the Singapore market to submit packaging data and plans to reduce, reuse and/or recycle packaging under the mandatory packaging reporting framework. The first reports are to be submitted in 1Q 2022. The Resource Sustainability Act also provides legislative effect to the EPR scheme for e-waste, which was implemented from 1 Jul 2021. Plastics from regulated electrical and electronic products such as ICT equipment and large home appliances will have to be properly treated or recycled. In addition, we will also be introducing a beverage container return scheme in the near future, as the first phase of the Extended Producer Responsibility (EPR) for packaging waste. We plan to introduce the next phase of the EPR for packaging phase subsequently.

- Packaging Partnership Programme (PPP)

  The Singapore Manufacturing Federation (SMF) has partnered the NEA to introduce an industry-led programme to support companies in their journey towards adopting sustainable packaging waste management practices. The PPP is a joint capability development programme that will support companies in fulfilling their new obligations under the Mandatory Packaging Reporting framework from 1 January 2021 as well as enable the exchange of best practices in sustainable packaging waste management. PPP members are also provided access to the use of the Logo for Products with Reduced Packaging.

- Singapore Green Labelling Scheme (SGLS)

  The SGLS is an environmental standard and certification mark administered by a non-governmental organisation, the Singapore Environment Council. It looks at the life-cycle environmental impact of products, as well as environmental best practices in their manufacture. The Scheme helps the public to identify environmentally sustainable products. SGLS categories that contribute to sustainable/circular product design include "Products with Recycled/Sustainable Content".

Achievements

Not any particular trend - Monitoring in progress as PPP is recently implemented

Senegal

Charge for single-use plastic products

Achievements

Single-use plastics are prohibited.

Actions for encouraging sustainable / circular product design

- The plastic law has introduced a tax on non-recyclable plastic products
- Awareness activities to encourage alternatives to plastic products

Achievements

Positive improvement - The taxation measure is still not yet implemented.

Spain

Charge for single-use plastic products

- Law 7/2022 on waste and contaminated soils for a circular economy
- Royal decree 293/2018 on plastic bags.
- Future Law on waste and soil contaminated

  Targeted products: beverage and food containers, cotton swabs, cutlery, plates, straws, drink stirrers, sticks destined to hold balloons, feminine hygiene products, wet wipes, tobacco products with filter, fishing gear. Plastic bags

  Both laws stablish a calendar to banish, reduce the use, recycle, mark, and raise awareness about these products.

- Future Royal Decree on packaging and packaging waste

Achievements

Positive improvement

Actions for encouraging sustainable / circular product design

- Circular Economy Action Plan 2021-23
- Law 7/2022 on waste and contaminated soils for a circular economy.
- EPR regulations

- Future Royal Decree on packaging and packaging waste
- Byproducts regulations: for agri-food industry intended for animal feed, polyurethane foam cuttings used in the manufacture of composite foam, waste from the production of polymeric material used in the production of agricultural film for silage, the fatty pomace from olive oil mills, when they are destined to the extraction of crude olive pomace oil.
- End of waste regulations for: processed waste oil from the treatment of waste oils, recovered fuel oil from the treatment of MARPOL type c waste for use as fuel in ships, recovered paper and cardboard intended for the manufacture of paper and cardboard, granulated rubber and rubber powder, obtained from the treatment of end-of-life tires and intended for certain applications

  Law 7/2022 stablishes as a preventive measure to encourage the design, manufacture and use of products that are resource-efficient, durable, and reliable (also in terms of lifetime and premature obsolescence), repairable, reusable and upgradable, particularly for plastics.

  The first line of action of the Circular Economy Strategy and Plan, production, aims to promoting the design/redesign of processes and products.

Regulation on microplastics

Law 7/2022 on waste and contaminated soils for a circular economy. This law bans the introduction to the market of products that contains microspheres of less than 5 mm added intentionally.

Sri Lanka

Charge for single-use plastic products

- Charge for shopping bags
- Paper straws have been introduced for certain products.
- Prevention of small water bottle use in fishing boats (less than 1 litter) and fishery harbors

Achievements

- Not any particular trend - Cabinet has directed for the observation of Attorney Generals Department
- Numerical data: National Plastic Waste Inventory is pending.

Actions for encouraging sustainable / circular product design

Alternative products are promoted (e.g. Paper straws, Products made of reed, bamboo, etc)

Regulation on microplastics

Achievements

- Banning of some single use plastic products con trolls micro plastics as well.
- Numerical data: 15 million shopping bags and 10 million lunch sheets are used daily.

Thailand

Charge for single-use plastic products

- Charge for shopping bag in big superstore

  Targeted products: thin shopping bags/single-use plastic bag

  Customer change: their behavior and therefore, prepare their own multiple-use bag

Achievements

- Positive improvement
- Numerical data: Totally ban single-use plastic bag, containers etc. in 2022

Actions for encouraging sustainable / circular product design

- Change for green cup/environmentally-friendly container in retail coffee shop
- Award or competition for eco-, circular- and green-design for packaging.

Achievements

Positive improvement

Regulation on microplastics

Notification of ministry of public health on cosmetic product B.E. 2562 (2019) under Cosmetic Product Act B.E. 2558 (2015)

Achievements

Widely discuss in research and policy meeting but regulation, standard or legislation have not been enacted. It is still in the early stage of preparation.

Türkiye

Charge for single-use plastic products

- Charging of plastic bags

  Targeted products: Single used plastic bags

  In order to prevent environmental pollution, raise awareness for environment and efficient management of resources, the Procedures and Principles Regarding the Charging of Plastic Bags have been put into effect as of January 1, 2019. For the application of charging plastic bags in 2020, “Procedures and Principles for Amending the Procedures and Principles Regarding the Pricing of Plastic Bags” has been updated and published with the Ministerial Approval every single year.

Achievements

- Positive improvement
- Numerical data

Others

- "Technical Assistance for Assessment of Türkiye's Potential on Transition to Circular Economy Project" funded by EU under IPA was initiated in February 2022. The duration of the Project is 3 years. With the project outputs, the transition to a circular economy, which also contributes to more efficient resource and waste management throughout Türkiye, will be encouraged. It is aimed to strengthen Türkiye's institutional and technical capacity in various aspects such as knowledge, strategic documents including relevant legislation, and human resources. The main outputs of the project are;
- The circular economy potential in our country will be investigated and a "National Circular Economy Strategy and Action Plan" specific to our country will be developed in 2023,
- Sectoral Impact Assessment Report will be prepared, Plastics, batteries and vehicles, packagings, electrical and electronic goods, textiles, construction and buildings, food and biomass are critical product value chains which will be focused on within the Project.
- Regulatory impact assessment report for single-use plastics will be prepared, roadmap for marine litter and single use plastics will be developed.
- Alternative collection models will be evaluated and guidance on best practices will be prepared.
- Institutional capacity will be strengthened.

UAE

Charge for single-use plastic products

The national program to reduce the use of single-use items.

Achievements

Actions for encouraging sustainable / circular product design

Program for the transition to the use of recycled plastic in the plastic industry

UK

Charge for single-use plastic products

- The Single Use Carrier Bags Charges (England) (Amendment) Order 2021

  Since 5th October 2015, large retailers in England have been required by law to charge 5p for all single use plastic carrier bags. On 21 May 2021, the charge was increased to 10p and extended to all retailers.

- Single Use Carrier Bags Charge legislation

  In Northern Ireland, Scotland and Wales this applies to all retailers:

  - Northern Ireland: From 2015, the levy charge was extended to carrier bags of any material with a 5p levy.
  - Scotland: the carrier bag minimum charge increased from 5p to 10p in April 2021.
  - Wales: In 2019 the efficacy of the bag charge was reviewed to inform future actions regarding changes in levies or charging scope.

  https://gov.wales/research-sale-and-use-carrier-bags-wales

  The Environmental Protection (Plastic Straws, Cotton Buds and Stirrers) (England) Regulations 2020

  We introduced legislation to introduce restrictions on the supply of plastic straws, cotton buds and stirrers, with some exemptions, e.g. for medical reasons.

  https://www.legislation.gov.uk/ssi/2019/271/contents/made

Achievements

- Positive improvement – In England, and excluding 2020/21, which was heavily impacted by the Covid-19 pandemic, the number of single-use plastic carrier bags sold by the main retailers has decreased every year since a charge was introduced in 2015.

  In addition, nearly £200 million have been donated to good causes as a result of the charge.

- Numerical data

  - The number of single-use plastic carrier bags (SUCB) used in the main supermarkets (England) has fallen by over 7 billion, from 7.6 billion in 2014, to 271 million in 2019/2020: a reduction of over 95%.

  https://www.gov.uk/government/publications/carrier-bag-charge-summary-of-data-in-england/single-use-plastic-carrier-bags-charge-data-in-england-for-2019-to-2020

  - We estimate that annual plastic straw usage in England will drop from 4.7 billion down to around 264 million. We plan to review the effectiveness of the policy after a year.
  - Below the surface: Twenty-five years of seafloor litter monitoring in coastal seas of North West Europe (1992–2017) - ScienceDirect (Maes et al. 2018) showed significant trend in plastic bags (down).

  https://www.sciencedirect.com/science/article/pii/S0048969718306442

  - In NI, retailers must declare number of all carrier bags dispensed on a quarterly basis and validated statistics are published annually by the Department. Statistics published in August 2021 reported a 30.2% reduction from 2019/20 to 2020/21. These can be found at:

  https://www.legislation.gov.uk/ssi/2019/271/contents/madehttps://www.daera-ni.gov.uk/atricles/northern-ireland-carrier-bag-levy-statistics

  Beach litter data shows a downwards trend in plastic stemmed cotton buds in Scotland. Due to covid-19, recent figures cannot be provided.

Actions for encouraging sustainable / circular product design

- Through the Resources and Waste Strategy for England we have committed to:
  - Work towards all plastic packaging placed on the market being reusable, recyclable, or compostable by 2025
  - Ban plastic products where there is a clear case for it and alternatives exist
  - Stimulate demand for recycled plastic by introducing a tax on plastic packaging with less than 30% recycled plastic
  - Deliver on the Greening Government Commitment to eliminate consumer single-use plastics from central government buildings

  *In light of subsequent evidence and feedback, we do not support the use of compostable plastic packaging. Though we recognise there is a valid role for compostable plastics in some niche applications, we do not think that packaging as a whole constitutes a niche application and will be focusing on working towards all plastic packaging being reusable and recyclable in the first instance, with compostable plastic used only where no other option is available.

- Sustainable Production Goals
  - Invoke the 'polluter pays' principle and extend producer responsibility for packaging, ensuring that producers pay the full-net costs of disposal for packaging they place on the market. Modulate producers' fees and introduce packaging recycling targets to increase greater recycling rates, reduce the amount of packaging used, and encourage the use of reusable and refillable alternatives. Include the cost of managing littered packaging within full-net costs to incentivise producers to reduce the prevalence of their packaging in the litter stream.
  - Introduce a deposit return scheme to incentivise increased recycling of in-scope drinks containers.
  - Stimulate demand for recycled plastic by introducing a tax on plastic packaging with less than 30% recycled plastic. This tax will affect UK producers of plastic packaging, importers of plastic packaging, business customers of producers and importers of plastic packaging, and consumers who buy goods in plastic packaging in the UK. The objective of this tax is to provide a clear economic incentive for businesses to use recycled materials in the production of plastic packaging, which will create greater demand for these materials and in turn stimulate increased levels of recycling and collection of plastic waste, diverting it away from landfill or incineration. The introduction of this tax will encourage a shift to recycled content in plastic packaging. This could have positive environmental benefits thanks to the reduction of raw material extraction during the production process.
  - Harness the potential of extended producer responsibility for other product types.
  - Set minimum requirements through eco-design to encourage resource efficient product design - The Government's Resources and Waste Strategy for England committed to review and consulting on measures such as Extended Producer Responsibly and product standards for five waste streams including fishing gear and textiles, as well as reviewing the existing producer responsibility schemes for waste electrical and electronic equipment (WEEE), batteries and end of life vehicles. Development of these policies is underway, with the first (a consultation on changes to the WEEE system) expected later this year.
  - Manage chemicals sustainably and address barriers to reuse and recycling posed by their use, through a Chemicals Strategy.
  - Develop a model for realising resource efficiency savings, working with businesses through 'resource efficiency clusters' - Our Resources and Waste Strategy outlines our plans and current activity to drive a shift to a more circular economy. Our forthcoming Waste Prevention Programme will set out how we will work with businesses to improve resource efficiency and minimise the amount of waste created across several key sectors – we hope to publish this later this autumn.

  The UK is supporting the development of a standard for circular design of fishing gear through CEN (European Committee for Standardisation) Work has commenced, with expected delivery end of 2024.

  The government provides funding to the Waste and Resources Action Programme (WRAP), who run the UK Plastics Pact (UKPP). UKPP members cover the entire plastics value chain and are responsible for the majority of plastic packaging sold through UK supermarkets, and approximately two thirds of the total plastic packaging placed on the UK market.

  Through our funding and industry fees, WRAP is:
  - Providing one-to-one support for their Plastic Pact members working on refill and reuse pilots.
  - Aiming for each retail member to have completed a reuse/refill trial by December 2022.
  - Working towards the longer-term ambition of making reuse mainstream by 2025.

Regulation on microplastics

- Microbeads

  In 2018 the UK launched one the world's toughest bans on the sale and manufacture of microbeads in rinse-off personal care products, helping to prevent billions of tiny plastic pieces from entering the ocean every year.

- Pre-production plastic pellets

  Pre-production plastic pellets (nurdles) are the basic feedstock used in the production of plastic items. They can be lost from the supply chain and enter the environment. It's estimated that up to 53 billion nurdles are lost each year, and they are one of the biggest sources of microplastic in the marine environment. To address this issue UK is working with the British-Irish Council and with the British Plastics Federation to strengthen Operation Clean Sweep, an international initiative which aims to reduce plastic pellet loss to the environment. The scheme ensures that companies train staff to sweep up spills, have the facilities to dispose of spilt pellets and cover drains to prevent run-off.

Achievement

- Positive improvement

  We are confident that this ban has led to a reduction in the number of microbeads entering the marine environment as evidence suggests that all parties are keeping to the regulations. The microbead ban policy is currently going through a post-implementation review.

- Numerical data

  Microbead impact assessment:

  https://www.legislation.gov.uk/ukia/2017/178/pdfs/ukia_20170178_en.pdf

Others

- The UK has committed to a ban on exports of plastic waste to non-OECD countries

  The UK Government has committed to consulting on options to deliver a ban on plastic waste exports to countries that are not members of the Organisation for Economic Co-operation and Development (OECD), and work is underway to make this happen.

  We plan to consult before the end of 2022 on options to deliver the ban and, as a precursor to that consultation, Defra has commissioned research to better understand existing plastic waste recycling capacity in the UK and OECD member countries. This research will be key to the development of policy options to implement the commitment.

US

- EPR - There are no EPR or single use plastic policies at the national level. Solid waste management, including policies and measures on single use plastics or bottle deposit schemes, are determined and implemented at the state and local level.

Charge for single-use plastic products

- Save Our Seas 2.0, Title 3, Section 301 "Circular Economy Strategy Series"

  Targeted products to include, but not limited to, single-use, unrecyclable or frequently littered plastic products

  Under Save Our Seas 2.0 Act, Title 3, Section 301 - EPA is developing a strategy which provides actions needed in the United States to reduce the amount of plastic waste entering waterways and oceans. The strategy identifies strategic objectives and voluntary actions that all U.S. stakeholders can implement to reduce, reuse, collect, and capture plastic waste.

Actions for encouraging sustainable / circular product design

- Save Our Seas 2.0, Title 3, Section 301 "Circular Economy Strategy Series"
  - Environmentally Preferable Purchasing Program
  - Safer Choice and Design for the Environment voluntary certification programs

- Under Save Our Seas 2.0 Act, Title 3, Section 301

  EPA is developing a Circular Economy Strategy Series with a vision to change our economy to one that reduces natural resource use, redesigns materials to be less resource intensive, and recaptures what we now consider waste as a resource to manufacture new materials and products.

  Through its Environmentally Preferable Purchasing Program, EPA makes efforts to improve the sustainable marketplace and uses the federal purchasing power to help catalyze sustainable products innovation. The program is planning to update the Recommendations of Specifications, Standards and Ecolabels for Federal Purchasing to help design out plastic waste, among other environmental priorities of the administration. EPA also developed the Safer Choice and the Design for the Environment (DfE) voluntary certification programs to make it easier for people to find products that meet EPA's rigorous health and environmental criteria. Certified products must also meet product performance standards and sustainable packaging measures.

Regulation on microplastics

- Microbead-Free Waters Act

  The Microbead-Free Waters Act prohibits the manufacturing, packaging, and distribution of rinse-off cosmetics containing plastic microbeads.

  The law also applies to products that are both cosmetics and non-prescription drugs, such as toothpastes.

EU

- Charge for single-use plastic products
- The Plastic Bags Directive (2015) and the Directive on the reduction of the impact of certain plastic products on the environment (Single-Use Plastic Directive) (2019)
- Targeted products:

  Food containers, EPS food and beverage containers, cups for beverages, cotton bud sticks, cutlery, plates, stirrers, straws, balloon sticks, balloons, packets, wrappers, beverage containers and bottles, tobacco product filters, sanitary towels, wet wipes, plastic carrier bags and fishing gear.

  The Plastic Bags Directive requires Member States to take measures to achieve a 'sustained reduction in the consumption' of lightweight plastic carrier bags, such as national reduction targets and/or economic instruments (e.g. fees, taxes) and marketing restrictions (bans), provided that the latter are proportionate and non-discriminatory. The Directive sets targets that annual consumption would not exceed 90 bags per person by 2019, 40 by 2025, and/or that by end of 2018 such bags would not be free of charge at the point of sale. Compared to the baseline scenario (2010) this is a 50% reduction in consumption by 2019 and a 80% reduction by 2025.

  The Single-Use Plastic Directive includes the following measures:

  - Extended Producer Responsibility (EPR) schemes under the principle 'the polluter pays' to ensure that producers will cover the costs of waste management and clean-up, data gathering and awareness raising for the following single-use plastic products and fishing gear containing plastic: tobacco products with filters, drink bottles, packets and wrappers, wet wipes, drinks cups (including their cover and lids), food and beverage containers, balloons, and lightweight carrier bags;
  - Product design measures for drink bottles related to tethered caps and lids, and a binding target of at least 25% of recycled plastic for PET beverage bottles from 2025 onwards and 30% recycled content for all plastic bottles by 2030;
  - Consumption reduction measures for single-use plastic versions of drinks cups (including covers and lids), and food containers;
  - A ban of single-use plastic versions of cotton bud sticks, balloon sticks, cutlery, plates, straws and stirrers; and beverage containers and cups made of expanded polystyrene (including their caps/covers and lids);
  - A general ban on oxo-degradable products;
  - A 90% separate collection target for waste from single-use plastic bottles either by Deposit Refund Schemes or improved EPR schemes by 2029 (interim target of 77% by 2025);
  - Marking requirements for sanitary towels, wet wipes, tampons and tampon applicators, tobacco products with filters and cups for beverages, indicating how waste should be disposed of, presence of plastic in the product and resulting negative environmental impact.
  - Member States with marine waters to set minimum annual collection rates of waste fishing gear containing plastic.
  - Member States to report annually to the European Commission on the amounts of fishing gear placed the market and on the amounts of waste fishing gear collected.
  - The European Commission shall request the European committee for standardisation to develop a harmonised standard for a circular design of fishing gear.

Achievements

The Single-Use product Directive was to be transposed by EU Member States on 3 July 2021. It is too soon to see an effect.

Actions for encouraging sustainable / circular product design

- Follow up to the Single-use Plastic Directive
- As a follow-up of the Single-Use Plastic Directive, the Commission also adopted a decision on a standardization request to the European Committee for Standardisation as regards circular design of fishing gear (2021) and a decision laying down the format for reporting data and information on fishing gear placed on the market and waste fishing gear collected in Member States (2021). These two decisions are expected to increase the positive effect to be produced by the establishment of extended producer responsibility schemes and the creation of port reception facilities for marine litter provided for by the Single-Use Plastic Directive and the Port Reception Facilities Directive respectively.

  URL:

  https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2021.211.01.0051.01.ENG&toc=OJ%3AL%3A2021%3A211%3ATOC
- Proposal for a Regulation on Ecodesign for Sustainable Products (ESPR)

  In order to deliver on commitments of the 2020 Circular Economy Action Plan and make sustainable products the norm in the EU, on 30 March 2022 the European Commission adopted a legislative proposal for an Ecodesign for Sustainable Products Regulation (ESPR). This instrument will enable targeted ecodesign rules (covering both performance and information requirements) to be laid down for a very wide range of products on the EU market, to make them more durable, reparable, recyclable, increase recycled content and make them more energy and resource efficient, amongst many other things. It also introduces other tools, including measures to prevent the destruction of unsold consumer goods. Priority products and areas for action will be set out in multiannual working plans.

Achievements

Positive improvement

- The first reporting year for the Member States to report on the amounts of fishing gear placed the market and on the amounts of waste fishing gear collected is 2022. Reports should be submitted 18 months after the end of the reporting period (mid-2024).
- The ESPR remains a proposal for the moment, with full adoption foreseen for circa 2024 (depending on progress in negotiations); consultation on the draft first working plan under ESPR will however be launched by end of 2022.

Regulation on microplastics

- Legislation on microplastics intentionally added to products

  The European Commission is drafting a legislation **to restrict microplastics intentionally added to products**, e.g. in cosmetics paints or detergents. It requested the European Chemicals Agency to review the scientific basis for considering a restriction under REACH. The European Chemicals Agency said that "health & environmental risks justify an EU-wide restriction". ECHA scientific committees assessed the measure and adopted their opinion. The proposed EU-wide restriction would cover intentionally added microplastics in multiple applications including agriculture, horticulture, cosmetic products, paints, coatings, detergents, maintenance products, infill material in artificial turfs, medical and pharmaceutical applications.

  As a step further, in the March 2020 new **Circular Economy Action Plan**, the European, Commission committed to address the presence of microplastics in the environment by addressing also **unintentional releases of microplastics** by developing labelling, standardisation, certification and regulatory measures. Where reduction of the emissions at source is not possible, measures at later stages of the life-cycle will be envisaged. This action was launched in 2021. The Commission will also look at harmonising methods for measuring unintentionally releases of microplastics, and at closing the gaps on scientific knowledge related to the risks and occurrence of microplastics in the environment, drinking water and foods. So far, the sources that have received the most attention are also the largest contributors in today's European context i.e. 1) synthetic textiles during their entire life-cycle 2) tyres related to tyre abrasion and 3) pre-production plastic pellets during their entire life-cycle.

Achievements

Positive improvement

International Organisations and NGOs

The most popular action is awareness-raising with seven organisations supporting it. Further, six organisations are focusing on circular product design, technology development and circular business model creation.

Four organisations are focusing on proper waste management; prevention of littering, illegal dumping and unintentional waste into the ocean; monitoring of country policy status; and monitoring plastic flows and ocean surface plastics. Two organisations are focusing on microplastic regulation, education system, removal of plastic litter, and collection of scattered waste. Scientific research is focused by one of the international organisations among the responses.

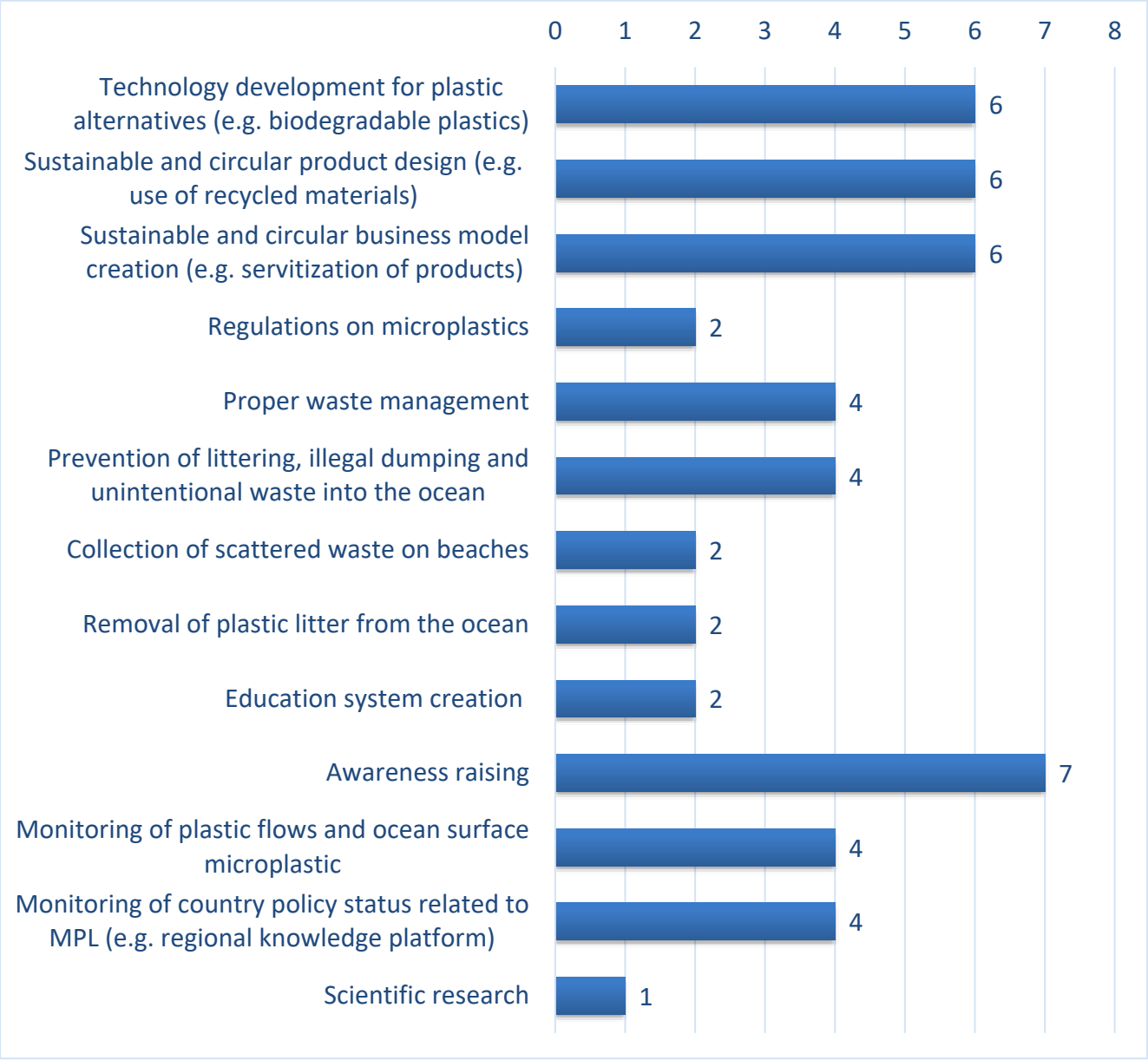

Figure 5: Organisation – Measures*

*Number of organisations responded YES among 8 responses

ADB

Sustainable and circular product design

- The project (TA-0044) aims to support the Thailand government in developing a policy/regulatory framework for waste management. The project also aims to organize a "Forum for Circular Plastic Packaging" with the Viet Nam government to develop recommendations that will be included in a technical guidance on circular plastic packaging. The recommendations will be targeting i) circular design and production, ii) consumption and iii) waste recycling.
- Numerical data – Implementation firm will commence work by 1 September 2022. More details will be shared in the next report.

Sustainable and circular business model creation

- The project (TA-0044) aims to establish a Circular Business Hub in Cirebon, Indonesia. The Circular Business Hub will act as a catalyst and incubator, where innovative technologies and academic and community ideas can flourish, and where innovative stakeholders can test concepts, technologies, and experiments that support a circular plastics economy. At the Circular Business Hub, innovative recycling techniques/technology for problematic plastics in its pilot stage can be tested with the aim of identifying solutions with potential for scaling up in Indonesia.
- Numerical data – Implementation firm will commence work by 1 September 2022. More details will be shared in the next report.

ERIA

Sustainable and circular product design

Information sharing on “Design for Recycling” in the ASEAN+3 context and “Plastic Recycling” in Asia on the RKC-MPD website.

https://rkcmpd-eria.org/practices/Government-Initiatives/recycling/design-for-recycling

https://rkcmpd-eria.org/publications/Plastic-Recycling:-Policies-and-Good-Practices-in-Asia

Sustainable and circular business model creation

- Private Sector Initiatives to Reduce Plastic Waste and Marine Plastic Debris (hereafter referred to as the Private Sector Platform).

  Private Sector Platform (PSP) is an online information sharing platform hosted on the RKC-MPD website. It has its objective to promote and encourage positive business initiatives that contribute to marine plastic pollution reduction. The online platform welcomes companies operating in ASEAN+3 region to showcase their products, services, or technologies in order to stimulate intra-regional information exchange and business expansion.

  https://rkcmpd-eria.org/story

  As of July 6th, 2022, 66 entries have been published, originating from 6 countries from the ASEAN+3 region (Japan, Malaysia, Indonesia, Viet Nam, Thailand, and Singapore).

Regulation on microplastics

- Information sharing with regards to country’s initiatives to reduce microplastics, including the ban on microbeads mandated in Thailand’s Roadmap on Plastic Waste Management 2018-2030.
- Information sharing on plastic leakage estimation, which highlights the need of harmonized monitoring methodology.

  https://rkcmpd-eria.org/practices/National-Framework-to-Tackle-Marine-Plastic-Debris/plan/thailand

  https://rkcmpd-eria.org/practices/Scientific-Knowledge/leakage-estimation

IAEA

Sustainable and circular product design

- NUTEC Plastics activity area “Radiation-supported recycling”

  Radiation technology, specifically gamma and electron beams, offer unique advantages to address the technological gaps that exist in plastic recycling. Innovation of plastic waste recycling using radiation technologies enables better sorting of plastic, breaking down plastic waste into components, converting plastic into fuel and feedstocks, and treating plastic waste to create upscaled products, such as composite materials. Irradiation with an electron beam can also be used for high-fidelity sorting of mixed plastics, as a result of radiation induced charge that is dependent on plastic type, thus enabling electrostatic separation. Radiation technologies can break down plastic polymers into smaller fragments that can be used as feedstocks to produce new consumer products. By combining pyrolysis or cracking of plastics with radiation in chemical recycling of plastic waste to generate fuel or monomer feedstocks, the process is not only easier to control, the required process temperature is lower by one hundred degrees or more and thus more economical. This is a green technology, eliminating the need for solvents and catalyst additives also delivers a higher product purity, and less by-products. Radiation processing also allows the properties of polymer waste to be tailored, creating new composites and enabling innovative repurposing of waste materials.

The IAEA began a Coordinated Research Project in 2021 entitled "Recycling of Polymer Waste for Structural and Non-Structural Materials by using Ionizing Radiation", with participation of the following countries: Algeria, Argentina, Brazil, China, Croatia, Egypt, Ghana, Hungary, Indonesia, Malaysia, Peru, Philippines, Poland, Russian Federation, Serbia, Thailand, Türkiye, Vietnam. National projects in Ghana and Argentina promotes the use of nuclear technology for managing plastic waste by generating value-added products. A regional project in Europe "Enhancing the Use of Radiation Technologies in Industry and Environment" is supporting countries to develop feasibility studies for the application of radiation technologies into the recycling process. Croatia, Hungary, Romania and Poland have already drafted their studies. The national project for Indonesia aims at supporting institutions to build capacity to reduce the amount of plastic waste through an integrated recycling system.

UNIDO

Sustainable and circular product design

UNIDO project "Supporting the promotion of circular economy practices on single-use plastic value chain" in Egypt supports capacity building of product design for SMEs in the plastic value chain. The project promotes eco-design practices in industry and encourages adoption of greener material, products, and production process or greener technology as well as greener business models, with support of enabling policy, regulations or economic tools, while minimizing any adverse impact on the industry.

Sustainable and circular business model creation

UNIDO's global project "SWITCH to circular economy value chains" supports creation of circular business models in the plastic packaging value chain.

The project supports the creation of circular business models in the plastic packaging value chain by providing technical assistance to EU multinationals' suppliers located in developing countries. The project will select a plastics packaging pilot and foster an enabling environment for the pilot and circular value chain transitions more generally by 1) enabling policy and value chain research & public-private dialogues in the target country; 2) conduct capacity building for businesses and service providers; 3) provide circular economy financing solutions in pilot country finance institutions, and in collaboration with the European Investment Bank (EIB), and 4) conduct communication activities to promote consumer/ stakeholder awareness and knowledge exchange on circular value chain approaches.

UNDP

Sustainable and circular product design

- As a country level example, UNDP-Ghana implemented the "Plastic Waste Recovery for a Circular Green Economy in Ghana" with a grant of USD491,730. The overall objective of the project was to support Ghana's effort to promote a circular economy in the plastic waste management sector. To achieve this objective, the project sought to raise public and private sector awareness on waste management, support Micro, Medium and Small-Scale Enterprises/Businesses (MSMEs) to take advantage of plastic waste collection and recycling opportunities, strengthen information generation and sharing among stakeholders in the waste management industry, and support the creation of an enabling environment regulatory frameworks (including clear policy and its coherence, sound regulatory frameworks, incentive structures, other fiscal and market-based instruments influencing vibrant business ecosystem in the plastic waste management). Green chemistry technologies and product redesign were prioritized with a focus on startups; this was aimed at promoting material recirculation.
- At the community level, the Small Grants Programme has implemented several initiatives to support material recirculation and sustainable circular product design. For instance, in North Macedonia, SGP helped a non-governmental organization with USD40,000 in an initiative that focuses on crushing PET plastic waste for the eco tiles production.
- Ocean innovator and startup Fortuna Cools is manufacturing cooling boxes that use waste coconut husks sourced in the Philippines as insulation material to replace fish and fresh food traders' usage of styrofoam boxes. During UNDP OIC support, they aim to reduce ocean plastics pollution by 50 tons per year.
- Sustainable and circular business model creation

  to promote business models. In India, UNDP has successfully scaled up a community-based initiative implemented by the GEF UNDP Small Grants Programme from two to 38 cities. Today, the USD 29.8 million project processes 83,900 tons of plastic waste per year and supports 5,200 waste pickers. The project implements effective strategies and actions for the collection, segregation and recycling of plastics and aims to overcome the negative impacts from plastics on health and the environment. As a result of the project's success, UNDP India was nominated as a member of the government's Expert Committee for improved Extended Producer Responsibility (EPR) policies. Read more here.
- In Ghana, UNDP has supported the piloting of over 10 waste recycling factories in plastic waste conversion processes. Currently about 5,500 people are directly employed in the plastic waste value chain through the business models used. UNDP-Ghana's Waste Recovery program, which promotes startups in circular economy is projected to create additional 450 direct jobs and 23,000 indirect jobs in Ghana. These initiatives focus mainly on how businesses could be created and sustained so that they could support efforts to reduce plastic pollution. At the community level, SGP-Ghana supported Godly World

International Centre (GWIC) to help disabled women to engage in a business model which focused on collection and recycling of waste. The aim was to clean the environment of plastic filth in Bolgatanga, and Bongo, communities by building the capacities of disabled people to transform plastic waste to shopping baskets, ropes, hats, doormats, and raincoats among others. These items are sold to generate income for the Persons with Disability to invest in organic agriculture and rearing of livestock to augment their income from the by-product of plastic waste trade. Another project focused on providing support to miners to invest in processing plastic waste into diesel, petrol and grease on commercial basis.

- In Seychelles, SGP supported Women in Action and Solidarity Organisation (WASO) with USD53,000 to explore circular business models. The activities are of three main types: training of participants in making economically viable products from household waste, training on waste management and environment protection, and finally to encourage the creation of small home-based businesses based on skills learnt. Thus, participants learn arts and craft work using mostly paper, metal, plastic, old clothing material and wood waste to make objects (fashion jewellery, home decorations, flower arrangements, gift sets, ash trays, animal and plants, and various types of souvenirs for both locals and tourists) that have economic value for sale so that they can become more economically independent. In North Macedonia, an SGP supported project helps with the crushing PET plastic waste for the eco tiles production, a major livelihood opportunity for the entrepreneur.
- Within the OIC, buyback centres are being planned in the Comoros through the UNDP Country Office while EPR schemes in both Costa Rica and Maldives are being developed aby OneSea and adelphi respectively in coordination with relevant private and public organizations. By taking
- into consideration innovative financial mechanisms and incentives, they aim to engage stakeholders actively.
- In order to reduce plastic pollution, The UNDP Indonesia Support Facility for the Archipelagic and Island State Forum collaborated with UNDP Vietnam and UNDP Philippines to have Ending Plastic Pollution Innovation Challenge (EPPIC). The top 4 winner, Siklus, Alterpacks, TrashCash, and Pure Ocean, has been selected from the finale pitching and has begun to implement their pilot project in Lombok, Indonesia and Samal Islands, Philippines. To raise the awareness of their innovative solution, the four-finalist joined the International Conference on Ocean Economy and EPPIC Sharing held by UNDP Vietnam.

WEF GPAP

Sustainable and circular product design

The Reuse Portal is an open collaborative platform providing users – whether innovators, businesses, policymakers, activists, consumers or citizens – convenient access to practical guidance, tools and networks to take action and drive momentum for reusable packaging solutions and scale alternatives to single-use formats

3.2. Environmentally-sound Waste Management

There were responses from 28 countries stating that they could enforce a proper waste management system with 19 countries stating a positive improvement after introducing the measure. Actions to prevent littering, illegal dumping and unintentional leakage of waste into the ocean are reported by 25 counties and 16 countries reported positive trends.

Figure 6: Countries - Environmentally-sound Waste Management*

*Number of countries responded YES among 33 responses

Countries

Australia

Enforcement of proper waste management system

- Ban on exports of waste plastic, paper, glass and tyres

  In March 2020, the Australian Government, along with all states and territories and local governments, agreed to introduce a ban on the export of waste plastic, paper, glass and tyres and that the ban would be phased in over four years, starting with glass on 1 January 2021.

  The Recycling and Waste Reduction Act 2020 (the Act) commenced on 16 December 2020.

  The Recycling and Waste Reduction Rules (Export–Waste Plastic) Rules 2021 (the Waste Plastic Rules) were made on 24 May 2021. The Act and Rules regulate export of waste plastic.

  From 1 July 2021, an export licencing scheme for waste plastics was implemented and exports of unsorted mixed waste plastics were banned.

  Phase 1 of the export ban was in place from 1 July 2021 until 30 June 2022. This required licence holders to sort their plastic into a single polymer or resin prior to export for further processing, recycling, and re-manufacture.

  On 1 July 2022, phase 2 of the export ban commenced. This requires licence holders to further process sorted waste in Australia prior to export, for example into flakes or pellets.

Achievements

- Not any particular trend - Australia no longer permits the export of low-grade mixed plastic waste. Waste plastic must be sorted into single resin or polymer type and further processed, for example flaked or pelletised, prior to export.
- Numerical data
  - In 2018/19 Australia exported about 150,000 tonnes of low-grade mixed plastic
  - Between the 2020-21 and 21-22 financial years, plastic exports decreased from 124,000 tonnes to 79,000 tonnes.
  - We are yet to see the full effect of the second phase of the ban.

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- 2019 National Action Plan to implement the 2018 National Waste Policy

  On 8 November 2019, Australian environment ministers agreed to a National Waste Policy Action Plan (the Action Plan) that will drive the implementation of the 2018 National Waste Policy. The Action Plan includes ambitious targets to make Australia a world leader in waste management and recycling, including:
  - An 80% ‘recovery’ rate of material across all waste streams
  - Significant increases to government procurement of recycled materials
  - Phase out problematic and unnecessary plastics by 2025
- Australian Recycling Investment Plan

  The Australian Government has committed to a AU$167 million Australian Recycling Investment Plan to increase Australia’s recycling rates and tackle plastic waste and litter, and accelerate work on new recycling schemes. The focus of this Plan is on creating the right investment environment so that new technologies are commercialised, preventing pollution from entering our oceans and creating valuable new products.

  The Plan includes AU$100 million through the Clean Energy Finance Corporation to support the manufacture of products using recycled materials (including plastics), AU$20 million through Cooperative Research Centre grants to find new and innovative solutions to plastic recycling and waste, an AU$20 million Product Stewardship Investment Fund to help to fast track new recycling/product stewardship schemes, and AU$16 million toward a Pacific Ocean Litter Project, and more than AU$11 million for community campaigns to reduce litter and clean up beaches and waterways.
- Threat Abatement Plan for the impacts of marine debris on the vertebrate wildlife of Australia’s coasts and oceans

  Australia is implementing the Threat Abatement Plan for the impacts of marine debris on the vertebrate wildlife of Australia’s coasts and oceans. The plan is available at https://www.environment.gov.au/biodiversity/threatened/publications/tap/marine-debris-2018
- National Plastics Plan

  Specific actions in the 2021 National Plastics Plan relating to the prevention of littering, illegal dumping and unintentional leakage into the ocean include:
  - Work with industry to fast-track the phase out of particular problematic and unnecessary plastics, and consider regulatory action should the industry phase out not be achieved
  - Deliver a Plastic Free Beaches initiative in partnership with Boomerang Alliance to eliinate single-use plastics from Australia’s favourite beaches and support local businesses to switch to alternative products
  - Pursue coordinated global action on marine litter and microplastic pollution through a new global agreement

- Work with the textile and whitegoods sectors on an industry-led phase-in of microfibre filters on new residential and commercial washing machines by 1 July 2030.
- Initiate an industry-led cross-sectoral stewardship taskforce to reduce cigarette butt litter in Australia and consider potential stewardship schemes
- Partner with states and territories and the CSIRO on solutions to prevent plastic debris entering the marine environment via stormwater
- Partner with organisations to establish a national monitoring protocol and database for plastic pollution.
- Continue to implement the Threat Abatement Plan for the impacts of marine debris on the vertebrate wildlife of Australia's coasts and oceans.
- Establish an Indonesia-Australia Systemic Innovation Lab on Marine Plastic Waste under the leadership of the CSIRO and the Indonesian Ministry of Marine Affairs and Fisheries.
- Implement measures to reduce ship-sourced waste in accordance with the International Maritime Organization's Action Plan to address marine plastic litter from ships

- CSIRO Plastics Innovation Hubs

  Indonesia-Australia Systemic Innovation Lab on Marine Plastic Waste:

  Australia and Indonesia have agreed to establish and have launched a new $1.3 million partnership, Indonesia-Australia Systemic Innovation Lab on Marine Plastic Waste, under the joint leadership of the CSIRO and the Indonesian Ministry of Education, Culture, Research and Technology. This new initiative will strengthen research collaboration to help identify new approaches in tackling marine plastic waste across the region.

  Mekong-Australia Systemic Innovation Lab on Marine Plastic Waste:

  The Vietnam Plastics Innovation Hub is an initiative of Aus4Innovation, an official development assistance program, sponsored by DFAT, managed and co-funded by CSIRO and the Hanoi Embassy and delivered in strategic partnership with Vietnam's Ministry of Science and Technology (MOST) and with collaboration from the National Plastic Action Partnership and the Vietnam Administration of Seas and Islands (VASI). A Mekong-Australia Systemic Innovation Lab on Marine Plastic Waste (covering Thailand, Cambodia and Laos) is the 3rd hub in the network, currently in the design phase.

  Further information at this link. https://ippin.org/

- Indo-Pacific Oceans Initiative

  DFAT has appointed CSIRO as Australia's Knowledge Partner under the Indo-Pacific Oceans Initiative.

- Partnership with National Centre for Coastal Research

  CSIRO is partnering with India's National Centre for Coastal Research, together with DFAT to support development of a formal partnership arrangement. Together with National Centre for Coastal Research (NCCR), CSIRO, and Singapore's National Environment Agency hosted the East Asia Summit (EAS) Marine Plastic Debris Workshop with most EAS member countries in attendance.

Achievements

- Positive improvement
- A 2022 study by CSIRO found that there was 29% less plastic on our beaches than in 2013, when similar surveys were conducted.

  https://www.csiro.au/en/news/news-releases/2022/plastic-on-australias-beaches-cut-by-almost-a-third

Brazil

- National Plan to Combat Marine Litter; National Reverse Logistics Program; National Information System on Solid Waste Management; National Plan to Solid Waste Management; Recycling Credit Certificate Program ("Recycle+"); Management of Material to be Dredged in Waters Under National Jurisdiction and its Final Disposition into Fresh and Marine Waters.

Achievements

- Positive improvement – The "Recycle+" credit will be issued by the managing entities registered in the National Information System on Solid Waste Management (SINIR) to prove the return of the equivalent mass the products or packaging to the supply chain. "Recycle+" credits can be acquired by manufacturers, importers, distributors, and traders to demonstrate compliance with reverse logistics systems obligations.
- Numerical data:

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Port State Control and Naval Inspections, carried out by the Brazilian Navy
- Environmental Permitting Process and Inspections, carried out by Federal, State and Municipal Environmental Agencies
- GloLitter Partnerships Programme, carried out by the Ministry of the Environment (coordinator), the Brazilian Navy, the Aquaculture and Fisheries National Secretariat and the National Waterways Transportation Agency.

Achievements

Positive improvement

Canada

Enforcement of proper waste management system

- Canada's comprehensive zero plastic waste agenda
- Environmentally sound waste management

Achievements

- Not any particular trend
- Numerical data
  - All provinces and territories have regulated extended producer responsibility programs in place, excluding Nunavut. There are over 160 regulated and voluntary stewardship programs in Canada covering more than 20 product categories including packaging and beverage containers.
  - Canada contributed CA $6 million to the Global Plastic Action Partnership, which has supported the launch of four national action plans in Indonesia, Ghana, Vietnam and Nigeria.

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Canada's comprehensive zero plastic waste agenda
- Zero Plastic Waste Initiative
- Ghost Gear Fund

  https://www.dfo-mpo.gc.ca/fisheries-peches/management-gestion/ghostgear-equipementfantome/program-programme/projects-projets-eng.html
- Inclusion of garbage provision in commercial fisheries conditions of licence.

  All commercial fisheries in Canada now have an inclusion of a garbage provision in all conditions of licence whereby the dumping of garbage from fishing vessels is now a chargeable offence.

  Domestically, Canada is taking action to prevent the leakage of plastics to the environment via its comprehensive agenda on zero plastic waste. Through actions across the lifecycle of plastics, Canada intends to achieve systematic change to keep plastics in the economy and out of the environment. This includes activities to support consumer education, investments in waste infrastructure and systems, and supporting best practices.

  Through the Canada-wide Strategy on Zero Plastic Waste and Action Plan, federal, provincial and territorial governments have committed to develop guidance or identify best practices to reduce plastic waste entering the environment from:
  - Natural disasters and spill events
  - Stormwater, wastewater and industrial discharges, and
  - Food and organic waste processing and sewage bio solids.

  In addition, Canada is assessing infrastructure gaps and opportunities to improve waste collection and recycling for marinas, ports and harbours.

  Through the Zero Plastic Waste Initiative, the Government of Canada invested over CA $5 million (2018-2022) to raise awareness and educate consumers and youth; develop and advance citizen science; mitigate plastic pollution leakage points; and develop, test and implement solutions to prevent, assess and remove plastic pollution.

  The Government of Canada has also launched social media campaigns to curb littering, including from personal protective equipment as a result of the COVID-19 pandemic.

  Internationally, Canada has invested CA $100 million to support developing countries in preventing the leakage of plastic waste into the environment. This includes advancing gender equity elements in plastic pollution through the World Bank ProBlue Fund and supporting the development of national action plans in Indonesia, Ghana, Vietnam and Nigeria via the Global Plastic Action Partnership.

Achievement

- Positive improvement
- Numerical data - Twenty-eight projects have been funded since 2018 through the Zero Plastic Waste Initiative, leveraging over $5.6 million in funds (public and private) and engaging over 400 partner organizations, and developing 125 best practices, tools and educational materials to prevent and reduce plastic pollution.

Chile

Enforcement of proper waste management system

- Organic Law of the Environmental Superintendence

  The Superintendency of the Environment plays a supervisory and sanctioning role in the environmental management instruments in force in Chile, such as Qualification Resolutions (RCA), Emission Standards, Quality Standards and Environmental Prevention and/or Decontamination Plans, among others.

Achievement

Positive improvement

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Construction of facilities to receive separated waste from the community and for the environmentally sound management of plastic waste.

  These facilities contribute to improving waste management and preventing littering, illegal dumping and unintentional leakage of waste into the ocean and aquatic ecosystem

Achievement

Positive improvement - Please check:

https://rechile.mma.gob.cl/donde-reciclar/

China

Enforcement of proper waste management system

- Opinions on Further Strengthening Plastic Pollution Control

  Togather with the implementation of garbage sorting and classification system, more work shall be done to classify, collect, and treat plastic wastes. A ban on random stacking and dumping of plastic wastes shall be implemented to avoid pollution. For office buildings, airports, stations, ports, and other places where large amounts of plastic wastes are generated, more disposal facilities shall be built and more garbage removals shall be completed. Multi-party cooperation among catering and food delivery platforms, environmental sanitation departments, recycling companies shall be promoted, with delivery packages, takeaway lunch boxes, and other recycling facilities setting up in key areas. Establish and improve a system for the recycling of waste agricultural films. The recycling and disposal of waste fishing nets and fishing gears shall be regulated.

- Action Plan on Plastic Pollution Control (2021-2025)

Achievement

Positive improvement

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Opinions on Further Strengthening Plastic Pollution Control

  The inspection and rectification of informal storage and dumping stations of domestic wastes will be carried out. Efforts shall be made to deal with plastic pollution caused by random dumping of domestic wastes in urban and rural areas, environmentally sensitive areas, roads and rivers, and pits and ditches. Operations to clean up plastic garbage in rivers, lakes, and harbors and clean beaches will be carried out. The cleaning and remediation of residual mulch film on farmland, plastic packaging of pesticides, and fertilizers will be promoted to gradually reduce the amount of such films on farmland.

- Action Plan on Plastic Pollution Control (2021-2025)

  The cleaning and treatment of plastic waste in rivers, lakes and seas are enhanced. We give full play to the role of the river and lake chief system at all levels, implement special cleaning projects of plastic waste within the management scope of rivers, lakes and reservoirs, establish a regular cleaning mechanism, and strive to basically eliminate open plastic waste in key water areas. We formulate the implementation plan of plastic pollution control in the Yangtze River economic belt.

  Ships are supervised and urged to collect, transfer and dispose ship garbage, including plastic garbage, in strict accordance with relevant laws and regulations, and shipping enterprises are urged to implement the main responsibility and crack down on illegal discharge of ship garbage according to law. We will ensure the normal operation of port receiving facilities of ship domestic waste, promote the effective connection between port receiving facilities and urban public transfer and disposal facilities, and implement the main responsibility of receiving, transferring and disposing ship domestic waste. We also improve the whole process connection and cooperation of ship port city, and strictly implement the policy of receiving ship domestic waste in inland ports of Yangtze River economic belt without charge.

- Marine Ecological Environment Protection Plan (2021-2025)

  Ship pollution prevention and control has been carried out. We further improve the operation and management level of ship pollutant receiving facilities, promote the effective connection with urban public transport and disposal facilities, and implement the joint supervision mechanism of port ship pollutant reception, transfer and disposal. We deepen the management of atmospheric emission control areas for marine vessels. We promote the construction and utilization of shore power facilities in coastal ports and ships.

  Comprehensive control of pollution in fishing ports and fishing vessels are exercised. We encourage the allocation and improvement of garbage collection and transfer facilities in fishing ports, and timely collect, clean up, transfer and dispose of garbage generated by fishing ports and fishing vessels arriving at ports. We explore the fishing gear identification and real name system, and strengthen research on the recycling of waste fishing nets, fishing gears and breeding cages. By the end of 2025, all the central coastal fishing ports will implement the pollution prevention and control measures of "one port, one policy".

- Action Plan for the Uphill Battles for Integrated Bohai Sea Management

Achievement

Positive improvement

Colombia

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

Achievement

Positive improvement

Costa Rica

Enforcement of proper waste management system

- Law on Integral Residues Management

  Establishes the main aspects it regulates, the hierarchy of residues management, guiding principles such as Extended Producer Responsibility and responsibilities of generators

- National Residues Policy

  The general guidelines of residues management in the country.

- National Plan for Integral Residues Management.

  Main actions and responsables for executing the comprehensive residues management plan.

- National Marine Residues Plan

  Nationally Appropriate Actions for the management of ordinary and organic waste in the country.

- NAMA Residues Costa Rica (nationally appropriate actions).

Achievement

- Positive improvement - Innovative, disruptive and comprehensive legal and management instruments in the integral management of residues.
- Numerical data - Five main documents for residues management are available.

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

Achievement

Positive improvement - Several initiatives summarized above are being developed which clarify the state of the situation of the sea and its beaches with respect to waste, knowledge of the type of waste, as well as the sources or activities that contribute to the waste reaching the sea or that clarifies what type of actors that deposit residues in the sea.

Others

The 20 INTECO Guidelines have been adopted related to single-use, renewable and compostable plastics (analysis methods related to RCM labelling renewable, compostable and compostable in marine environment) biodegradability of plastics, degradation of polyethylene, ultraviolet exposure of plastics, non-floating plastics in the marine environment, test method to determine aerobic biodegradability of plastics under controlled composting conditions, etc.

Fiji

Enforcement of proper waste management system

- Litter Prevention Officer Trainings

  Enforcement training for the public officers and non-public officers and local authorities to be Litter Prevention Officers on the ground, and to help enforce the Litter Act.

- School and Community based trainings on Waste Management

  Community and Schools based trainings/workshops to better manage waste/composting and proper disposal.

- Monitoring and compliance on single use plastic bag sales

  Regular compliance inspections are carried out to ensure banned plastic bags are not in circulation. Offenders are prosecuted.

- Issuance of Waste Disposal Permit and Waste Recycling Permit, and Plastic Import Permits with conditions.

  All commercial and industrial facilities are required by law to obtain relevant Waste Disposal Permits and Waste Recycling Permits.

- Non-compliance notices issued to commercial and industrial operating without permits/breaching environment regulations.

  National and International commemorated days are used as outreach tools in the communities and general public on waste management issues.

- Media Outreach on waste management and pollution control issues.

  Roundtables/meetings with commercial/industrial facilities to create awareness on the permits required by facilities.

- Waste and Pollution Control Roundtables with commercial/industrial facilities.

  Non-compliance notices issued to facilities operating without permits.

Achievement

Positive improvement

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Permit System (Waste Disposal Permits, Waste Recycling Permits) issued by the Department of Environment
- Litter Prevention Officer Trainings
- Installation Anti-Litter Signage Boards
- Clean-up Campaigns along the foreshore/coastal areas.
- Community awareness on Anti-Litter laws and illegal dumpling
- Issuance of Prohibition Notices and Non-Compliance Notices by the Permit System (Waste Disposal Permits, Waste Recycling Permits) issued by the Department of Environment
- Litter Prevention Officer Trainings
- Installation Anti-Litter Signage Boards
- Clean-up Campaigns along the foreshore/coastal areas.
- Community awareness on Anti-Litter laws and illegal dumpling
- Issuance of Prohibition Notices and Non-Compliance Notices

Achievement

Positive improvement

France

Enforcement of proper waste management system

- Simplify the sorting process for citizens and extend it to all types of household plastics; Since January 1, 2020, 35 million of French can dispose of all packaging and paper, without exception, in the recycling bin. The integrality of the population should be concerned by the end of 2022;
- Communication through medias on sorting;
- Experiment deposit schemes;

- Decision to create a new EPR organization for industrial and commercial packaging before 2025
- The legislation against waste and for a circular economy dictates that the terms of reference of the EPR organizations should include targets for reducing the amount of packaging placed on the market, particularly single-use plastic packaging. Failure to reach these targets is sanctioned (implementation in 2023).

Achievement

- Not any particular trend
- Numerical data
  - Total post-consumer plastic waste generation: 3,7Mt
  - Total of post-consumer plastics collected for recycling: 1,3Mt.
  - The rest is either incinerated or disposed of in landfill.

  Source: ADEME, Bilan national du recyclage, l'essentiel 2019.
  - For plastic packaging, the latest figures are the following:
    - Total amount of post-consumer plastic packaging waste: 2,2Mt
    - Recycling rate: 26%
    - Recovery rate 65% (including recycling)

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- On-land actions:
  - Elaborate recommendations for municipalities in order to fight illegal dumping;
  - Provide municipalities good practices and a national guide to fight litter and monitor landfills along the coastline;
  - Identify solutions for the substitution of expanded polystyrene and support fishermen toward these solutions;
  - Prevent the leakage of preproduction plastic pellets into the environment through an involvement of the industries
- Actions on rivers and waste and rain water:
  - Integrate objectives concerning marine litter in inland waters planning documents;
  - Launch actions to prevent the leaks of plastic filtering sieves from water treatment plants into the environment.
- Actions on the seashore and at sea
  - Implement the collection and recycling of fishing gears and aquaculture waste in link with the European directive; (exemple of projects: GHOSTMED, RECUPMED, etc.);
  - Projects are funded to tackle plastic pollution in the oversea territories;
  - Encourage and develop passive fishing for litter actions and actions to improve waste reception and management in ports; in accordance with the EU directive 2019/883;
  - Increase the number of ports joining the European "clean port" certification;
  - Provide fishermen and mussel farmers good practices to prevent waste from net cuttings and from mussel farming.

Achievement

Not any particular trend

Indonesia

Enforcement of proper waste management system

- Adipura Program

  Adipura Program is an instrument to measure the cleanliness and performance of city and regency in solid waste management.

Achievement

Positive improvement

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Local regulation

  Each city/regency has local regulation in prohibition of littering and illegal dumping and set fine for who breaking the regulation.
- Government Regulation Number 27/2020 concerning specific waste management, and government regulation number 81/2012 concerning household waste management.

  According to the abovementioned government regulations, we oblige the area manager (including residential, industrial area, commercial area, etc), as well as a person(s) who hold mass activities, to responsible with waste generated from their activities/area. One of the obligations is to provide waste treatment facilities and/or collect, segregate, and transport the segregated waste to the waste treatment facilities.

  The abovementioned description leads the government to come up with the readiness criteria of the local government for having support funding/assistance on waste management.

Achievement

Positive improvement

Italy

Enforcement of proper waste management system

- National National Programme for Waste Management

  The National Programmme for Waste Management is a tool that guides and supports regional waste management planning to ensure compliance of planning criteria with the objectives of EU legislation. It also aims to enforce the sustainability, efficiency, effectiveness and cost effectiveness of waste management systems throughout the national territory.

  Targets:

  - To contribute to sustainable use of resources and reduce potential negative environmental impacts of waste cycle;
  - Progressive rebalancing of socio economic gaps in the waste management;
  - Strengthen the awareness and virtuous behavior of eco nomic actors and citizens for waste reduction and valorisation;
  - To promote a waste cycle management that contributes to the achievement of the objectives of climate neutrality.

Achievement

New Programme, it is not possible to see a trend yet.

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- D.Lgs 197/2021.

  This law aims to protect the marine environment from the negative effects of waste discharges from ships and to ensure the proper functioning of maritime traffic by improving the availability and use of adequate port reception facilities for waste collection.

- Law 60/2022. SALVAMARE

  This law aims at contributing to the recovery of the marine ecosystem and to the promotion of circular economy, also by disseminating behavioral mod els aimed at preventing waste in the sea, in lakes, rivers and lagoons and their proper management. Specific rules are provided for different types of waste including passively fished waste, voluntarily collected waste and floating waste in rivers.

  - adopt ion of experimental measures in rivers aimed at capturing floating waste, compatible with hydraulic needs and protection of ecosystems
  - promotion of awareness campaigns

Japan

Enforcement of proper waste management system

- Comprehensive enforcement of waste collection based on public cooperation, e.g. appropriate waste segregation and disposal practice, in accordance with waste management and recycle regulations;
- Installation of recycling facilities to increase domestic recycling capability and to improve recycling of polystyrene foam boxes often used in fisheries with updated technology;
- Enforcement of collection and appropriate treatment of agricultural-generated used plastic in collaboration with related associations;
- Enforcement of onshore collection and appropriate treatment of plastic wastes, such as used fishing gear by guidelines developed in 2020;
- Support for ODA programs in developing countries with regard to waste regulations, capacity and institutional building for waste management, formulation of action plans, and installation of high quality environmental infrastructure such as waste-to-energy plants.

Achievement

- Positive improvement
- Numerical data

  Amount of waste plastic recycled, heat recovered, incinerated without energy recovery, and land filled (ratio of effective use (thermal recovery and recycling) was 86.4% in FY2020, an increase of 1.0% compared to FY2019)

	FY2017	FY2018	FY2019	FY2020	FY2021
Recycling	2,040kt	2,140kt	2,130kt	2,000kt	Under investigation
Heat recovery	5,060kt	5,070kt	5,130kt	5,090kt	Under investigation
Incineration of waste without energy recovery + landfill	1,520kt	1,410kt	1,250kt	1,120kt	Under investigation
Total	8,630kt	8,610kt	8,500kt	8,220kt	Under investigation

  (Reference)

  “The status of production, disposal, recycling and treatment of plastic products” (Plastic Waste Management Institute JAPAN)

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Strengthening of patrol activities by national and local government;
- Support for the beverage industry association to install PET bottle collection boxes next to vending machines to achieve 100% recycling;
- Prevention of unintentional leakage of plastics through appropriate use and proper management of fishing gear by fishers.

Achievement

- Not any particular trend
- Numerical data

  Collected amount of land-based litter, illegal dumping, and scattered waste

	FY2017	FY2018	FY2019	FY2020
Total litter	91,320 t	86,023t	to be investigated	to be investigated
Plastic litter (estimate)	9,940 t	7,952t	to be investigated	to be investigated

  (Reference)

  "Estimated amount collected by clean-up and collection activities":

  Estimated amount, excluding the amount collected on the coast, based on the amount collected by prefectures and municipalities

  "Amount proportion of plastics":

  Estimated amount collected, based on the results of those local governments which have data on the amount of plastic

Others

The "MARINE Initiative" was launched focusing on (1) Management of waste, (2) Recovery of marine litter, (3) Innovation, and (4) Empowerment, including provision of training for 10,000 officials engaging in waste management all over the world by 2025. Based on the MARINE Initiative, Japan, in cooperation with international organizations, has implemented numerous projects to tackle marine plastic pollution.

Mexico

Enforcement of proper waste management system
Reduce and reuse of plastic waste

- The Port Sector, certified under ISO 140001, provides a framework and a structured approach for comprehensive waste management.
- In addition, as established by NOM 161-SEMARNAT-2011, waste management plans are executed.
- Program "National vision towards a sustainable management: zero waste".
- Sound waste prevention and management programs are developed in the municipal and regional level.
- Planning instruments that allow the establishment of objectives and strategies in terms of comprehensive waste management.
- In addition, the federal government carries out some actions to promote integrated waste management; however, municipal governments are responsible for the management of urban solid waste.

Achievement

Positive improvement - The program "National vision towards a sustainable management: zero waste" is focused on social justice and seeks to establish a sustainable regional model for the management of urban solid waste, including the cleanup of open air-dumps in the country.

Likewise, it directs the action to flows and processes of classification, collection, transport, transfer, reuse, recycling, collection, storage and material and energy recovery of waste.

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

Reglas de Operación de los Puertos

Achievement

Positive improvement

Myanmar

Others

- Myanmar do not allow importing plastic waste but allow the import of plastic scrap only under these criteria:
  - Plastic scrap to be imported must be clean, homogenous and ready to be used as raw materials.
  - Recycling factories must have an Approval Letter or Environmental Compliance Certificate of an Environmental Management Plan, Initial Environmental Examination or Environmental Impact Assessment, which is approved by the Ministry of Natural Resources and Environmental Conservation.

Netherlands

Enforcement of proper waste management system

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- National waste management plan (Landelijk Afvalbeheerplan, LAP3), in compliance with the European Waste Framework directive.

  The policy framework in LAP3 sets out the national waste prevention and management policies, the objective of waste policies and definitions. It also provides insight into scenarios, monitoring and enforcement. The sector plans in LAP3 elaborate the general policy from the policy framework for specific flows. The sector plans are the assessment framework for the authorisation of waste processing establishments. On March 2nd 2021 the 2nd modification of LAP3 came into force. LAP3 can be found on: https://lap3.nl/

Achievement

Not any particular trend

Norway

Enforcement of proper waste management system

- Further developments and refinement of the waste management system

  In general, Norway has a well-functioning waste collection and management system that ensures environmentally sound waste management. Clean-up of legacy waste has increased in years.

  As of 2021, Norway has a national target that the levels of recycling should increase and that waste generation should be lower than the economic growth.

  Norway adopted in May 2022 a new chapter 10A in the Waste regulations chapter 10A establishes mandatory sorting of biological waste and plastic waste (including plastic packaging and agricultural plastics) from municipal waste. The regulations will enter into force 1 January 2023. This regulation requires municipalities to sort at least 70 % of plastic waste from households by 2035. It may also be necessary to strengthen the infrastructure for secondary raw materials.

  Norway has also adopted new regulations to implement the targets for recycling in the EU directive on packaging and packaging waste in the waste regulations chapter 6 and 7, that entered into force in May 2022. These changes mean that the amount of plastic packaging waste recycled must increase to 50 % by 2025 and to 55 % by 2030.

Achievement

Not any particular trend

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- We have many measures, and most of them are described in the national plastics strategy which can be found. Here

  https://www.regjeringen.no/en/dokumenter/norwegian-plastics-strategy/id2867004/

- One example is that we have introduced a scrap value for leisure boats (below 49 feet, including canoes, kayaks etc.)
- The dumping of leisure boats were identified as a problem and a scrap value system was established, when a boat is handed in to a dedicated waste management facility a reward of Norwegian Kroner 1000 can be claimed.
- Littering and dumping of waste is illegal in Norway according to the Norwegian Pollution Control Act.

Achievement

- Generally it is difficult to measure this.
- Numerical data - From 2017 till May 2021 a total of 36 600 discarded boats have been handed in as part of the system. Numbers for 2020: 13,000 boats.

Oman

Enforcement of proper waste management system

- Oman comply and accept amendments to annexes II, IIIV and IX to Basel Convention

  Oman will allow the imports of plastic covered by waste code B3011 as of 2021, as long as Such plastic waste falls within the scope of the newly created waste code B3011.

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Oman has stated the guideline no (159\2005) which determine the chemical parameters and physical parameters along with biological parameters of the discharged water coming from the desalination plants and any discharged sources.

  This guideline had maintained the seawater quality in Oman

  The guideline also stated conditions for establishing any construction along the coastline to conserve the marine environment

  There are conditions diving, dumping and other activities which can maintain the coral reef in Oman.

Achievement

Positive improvement

The water quality in Oman is monitored regularly and it is in a good case.

Peru

Enforcement of proper waste management system

- Legislative Decree N°1278 “Solid Waste Management Law”.

  The Ministry is working with the private sector to develop a comprehensive response to solid waste management. Some of the projects that are currently being financed through Public/private partnership to reduce the infrastructure gap that exist in the country. The way the partnership works is that the private sector pays their taxes out-front and the government uses the funds to build required public infrastructure to support waste management facilities in priority areas in the country.

  In addition, the Solid Waste Management Law 1501, including its updates, establishes a program in which everyone must sort-out the different materials at the source which is supported by a waste collection program for the different products.

Achievement

Positive improvement - Currently, in Peru the daily solid waste production is approximately 22 505 tons, 61.3 percent of that goes directly to landfills.

In the year 2016, 23’475 tons of solid waste were either compost or recycled. In 2019, the amount of solid waste that was recycled or composted increased to 84’063 tons.

In 2020, the amount of recycled or composted [1] solid waste, decreased to 59’021 tons because of the pandemic.

In 2021, the amount of solid waste that was recycled or composted1 increased to 148´496,63 tons. ([1] The amount of solid waste that was recycled or composted, includes organic and inorganic solid waste such as: plastic, glass, metal, cardboard, paper, among others.)

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Legislative Decree N°1278 "Solid Waste Management Law".

  The Solid Waste Management Law provides the policy framework to support an efficient solid waste management program that regulates the process from production to final discharge.

  At the same time, guidelines have been developed to help municipalities to complete local waste management plans as they are responsible for the municipal waste management programs. The non-municipal solid waste management is the responsibility of the entity that generates it. In both cases there are special entities that oversee that the requirements are being fulfilled.

  The Law also establishes the responsibilities of those whose products become part of the solid waste.

- Law N°30884 "Law that Regulates Single-Use Plastic and Disposable Containers or Containers".

  In the other hand, Law 30884 prohibit the commercialization and use of single-use plastic such as plastic bags, plastic straws, plastic and expanded polystyrene food and drink containers in the following:

  - Natural Protected Areas
  - National Historical and Heritage Sites
  - Museums
  - Pacific Ocean beaches
  - Amazon basin beaches
  - Public entities.

Achievement

Positive improvement - In 2019, 53.4 percent of the solid waste ended up in a landfill. In 2020 it increased to 54.9 percent, and, in 2021, it increased to 61.3 percent.

Republic of Korea

Enforcement of proper waste management system

- The 1st National Resource Circulation Plan (2018~2027)

  In accordance with the 'Framework act on resource circulation', 'The 1st national resource circulation plan was established to set out the path for more sound waste management system in ROK with the specific goal to decrease the amount of GDP-waste generation ratio of ROK by 20% until 2027.

  The plan was established based on resource circulation and life-cycle approach and it comprises of 4 main strategies which can work on each stage of product's life cycle from production to recycle. 1) Establishing resource effective system at the product manufacturing stage using resource circulation approach, 2) Promote green comsumption by minimizing the use of single-use products, 3) Enhance waste disposal system through governance, 4) Accelerate material recycling including plastic and batteries through R&D projects and institutional support.

- Korea Circular Economy Action Plan established in December 2021

  The action plan aims to facilitate recycling of wastes with high added values, recover and reuse metals in wastes, promote "city oil fields" (which is to use the oil recovered from pyrolysis of waste plastics), build a system to recover and recycle E-wastes and used batteries and solar panels, and improve efficiency of organic waste-to-biogas process.

Achievement

Positive improvement

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- The 3rd national action plan on rivers and estuaries (2021-2025)

  MOE establishes a national action plan every 5 years to effectively manage rivers and estuaries in particular that can be easily polluted by the waste entering from the land. The plan takes multi-faceted approaches using life-cycle and resource circulation approach.

Achievement

Positive improvement

Republic of the Marshall Islands

Enforcement of proper waste management system

- Solid Waste Regulations, Part VIII: Violations:

  A person who violates any provision of these regulations or any permit, requirement or order issued thereunder, shall be subject to enforcement by the Authority.

  The enforcement action may be any or all of the following:

  - Revocation of a permit issued under these regulations;
  - The making of a cease and desist order in relation to the subject matter of the violation;
  - The imposition of a civil penalty, fixed by the Authority, not exceeding $10,000 for each day on which the violation continues
  - The institution of civil proceedings to restrain the violation; and
  - Any other action authorized by the National Environmental Protection Act 1984 or any other law

Public hearing:

- When the Authority revokes a permit or a cease and desist order is made under regulation 35 b) (i) or (ii), or both, a public hearing shall be conducted by the Authority to determine the authenticity of the facts upon which the order was made.
- Adequate notice of the hearing, and an adequate opportunity to appear and be heard at the hearing, shall be given to all interested persons.

Penalty for lack of permit:

- Any person required to have a permit under these regulations and engaged in an activity without such a permit shall be subject to a civil penalty of $100.00 per day for each day the activity is conducted without a permit.

Achievements

Positive improvement

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Marine Water Quality Regulations 1992, Part V, Marshall Islands Pollutant Discharge Elimination System (MIPDES):
- MIPDES Regulations – For the purpose of establishing general and specific criteria to limit point source discharges of pollution into the marine waters of the Republic, a system for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing MIPDES Permits shall be set forth by the Authority by public regulation.
- Part VII – Pollution Control Requirements:

  General requirement:

  - Any person who initiates any project with may represent a new or increased source of pollution, either point source or non-point source, shall first obtain written approval of the Authority that the project will not directly or indirectly impair any beneficial uses of the affected marine waters.
  - The Authority may place conditions on the construction or operation of the project, or both, as necessary to mitigate or eliminate any adverse water quality impacts associated with the project.
- Marine Sanitation Device:

  Marine sanitation devices shall be installed on all vessels with toilet facilities and shall be designed and operated to either retain, dispose of or discharge sewage.
- Sewage Discharge from Vessels

  The discharge of sewage, whether treated or not, from any and all vessels into marine waters is completely prohibited.
- Hazardous substances
  - It shall be in violation of these regulations for any person to store, dispose of or allow to accumulate any hazardous substances in such a manner that the substances may enter the marine waters of the Republic without first obtaining written approval of the Authority.
  - Such substances include, but are not limited to petroleum products, pesticides, radioactive substances, biological substances and toxic chemicals.
  - The Authority may require persons handling hazardous materials to implement measures to reduce the possibility of contaminating the marine waters of the Republic.
  - In the event of an accidental spill or discharge of hazardous materials, the responsible person shall immediately notify the Authority and take all reasonable measures to contain the material so that it will not contaminate the marine waters of the Republic
  - Failure to notify the Authority within 24 hours and failure to take reasonable mitigation measures shall each constitute a separate violation of these regulations.
  - Nothing in this Regulation with respect to petroleum products shall be construed to limit or supercede the oil pollution control requirements in Part VII of these regulations

Samoa

Enforcement of proper waste management system

- Waste collection services

  The Government's waste collection services cover 4 inhabited islands and the collection frequency is twice a week with quarterly bulky waste collection. Two Fukuoka landfills; one on Upolu Island (main) and one on Savaii island.

Achievements

Positive improvement - A waste collection monitoring system is in place using GPS technology which is the first for the Pacific.

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Law enforcement and public awareness programs

  Law enforcement is critical and goes together with public awareness programs to inform the general public of the impacts of inappropriate activities in regards to waste. Public litter bins have been installed in public places and segregation cages in place for main supermarkets around Apia township.

Achievements

Positive improvement - Littering and illegal dumping are dealt with accordingly while leakage into the ocean from sea is a challenge.

Others

Development of the National Effluent Standards for Samoa

Achievements

Samoa through the Ministry of Natural Resources and Environment (MNRE) is working with key stakeholders to finalize Samoa's NES.

Saudi Arabia

Enforcement of proper waste management system

New Waste Management Law & Regulations

Achievements

Positive improvement

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

The National Action Plan for Managing Marine Litter in the Red Sea

Achievements

No particular change

Singapore

Enforcement of proper waste management system
Reduce and reuse of plastic waste

To address the issue of marine plastic litter and microplastics, Singapore has in place stringent legislation and regulations on pollution control and waste management and a comprehensive waste and water management system to minimise waste at source and prevent discharge of litter into the sea. The prevention and reduction of marine pollution is achieved through (i) management of pollution from land-based sources; and (ii) management of water pollution and quality in inland water bodies and coastal areas.

Singapore's approach is detailed below:

Comprehensive waste management system

- Control of waste disposal. Through the Environmental Protection and Management Act (EPMA) and the Environmental Public Health Act (EPHA), Singapore's National Environment Agency regulates the disposal of all types of waste in Singapore and administers strict anti-littering regulations. This includes the discharge of trade effluent, oil, chemical, sewage or other polluting matters into drains, as well as hazardous substances into inland waters and conducting regular water quality monitoring of inland water bodies and coastal areas to meet international standards
- Anti-littering and waterways clean-up measures,

  Anti-littering as well as waterways clean-up measures, which ensure that land-based litter, including plastic waste, that might otherwise wash into the ocean is prevented from doing so
- Integrated and comprehensive solid waste management and collection system

  Integrated and comprehensive solid waste management and collection system to minimise waste at source and collect all waste for proper disposal.

Achievements

Positive improvement

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Damming up tidal rivers to form reservoirs

  Damming up of tidal rivers to form reservoirs as source of water supply to minimise litter from flowing out into the sea. Vertical gratings, litter traps and float booms installed where appropriate as part of the drainage network to trap debris and litter
- Collect and treat all used water at water reclamation plants (WRPs)

  All used water collected and treated at water reclamation plants (WRPs) to international discharge standards. Most plastic materials, including microplastics, removed through current treatment processes at the WRPs
- Party to all six Annexes of the International Maritime Organizations's (IMO) International Convention for the Prevention of Pollution from Ships (MARPOL)

  Singapore is party to all six Annexes of the International Maritime Organisation's (IMO) International Convention for the Prevention of Pollution from Ships (MARPOL), the main international convention covering prevention of pollution of the marine environment by ships. MARPOL Annex V in particular prohibits the discharge of garbage, including all types of plastics, into the sea
- Singapore's Maritime and Port Authority (MPA)'s port inspectors patrol Singapore's port waters to ensure that ships in the Port of Singapore do not illegally discharge waste, oil, garbage and sewage
- Singapore conducts inspections on both Singapore-registered and foreign-registered ships in our port to ensure that they comply with the regulations on garbage disposal into the sea and that anti-pollution measures are in place. Ships are also required (by IMO requirements) to maintain a record of their garbage and management plans for verification by Flag State Control and Port State Control inspectors
- Singapore's MPA deploys five garbage collection crafts daily at scheduled timings to collect garbage from ships at the anchorages

Senegal

Enforcement of proper waste management system

Setting up of standardized waste collection points

Achievements

Positive improvement

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- The implementation of legislation such as the Environmental Code and the Plastic Law

Achievements

Positive improvement

Spain

Enforcement of proper waste management system

- Law 7/2022 on waste and contaminated soils for a circular economy.
- Several Royal Decrees for EPR
- Royal Decree 646/2020 on landfill disposal of waste.
- Royal Decree 553/2020 on waste shipment within Spain.
- Law 5/2013 on integrated pollution prevention and control (incineration)
- Brief description: Each of these laws establishes measures to ensure environmentally sound waste management at each step of the waste hierarchy.

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Marine strategies

  Law 7/2022 on waste and contaminated soils for a circular economy.

  Royal Decree 293/2018 on reducing the consumption of plastic bags

  Circular Economy Plan & Strategy

  Future RD on packaging and packaging waste

  All these measures contain legal provisions to prevent that waste can eventually reach the ocean, including litter produced in both land and offshore.

Sri Lanka

Enforcement of proper waste management system

National Policy on Waste Management

Achievements

- Positive improvement
  - New state of the art waste disposal facilities established.
  - Waste to energy plant 10MW- Kerawalapitiya
  - Sanitary land fill – capacity 1200 Tons per day- Aravakkalu
  - Waste recycling improved
  - Material Recovery Facilities (MRF) established
  - Integrated Institutional setup is for implementing the waste policy is yet to be established.
- Numerical data: There are around 335 waste collectors and recyclers registered under the Central Environmental Authority.

Prevention of littering, illegal dumping, and unintentional leakage of waste into the ocean

- Introduce sea dumping regulation under this regulation dumping plastic waste and other materials are prohibited
- Established litter traps at selected chanals to prevent litter enter to sea
- Beach caretakers appointed to clean the beach daily.
- Beach clean up programmes conducted.
- Some stretches of the beach is being maintained by the Sri Lankan Navy & Some by private sector.
- River clean up programme initiated and implemented as waste is brought to the sea by the rivers (Surakimu Ganga Programme)

Achievements

- Positive improvement –
  - Sea dumping regulated. Through this regulation we managed reduce the dumping waste from selected sources such hotels, and other type of industries.
  - Litter traps established at more than 54 small drainage and 5 middle size canals already established
  - Activities on going, Private sector sponsor Beach Caretakers
- Numerical data: Beach cleanup programmes affected due to the economic crisis in the country.

Thailand

Enforcement of proper waste management system

- Central government and local government are improving the waste management system with providing budget that priorities for waste management improvement

Achievements

Positive improvement

Prevention of littering, illegal dumping, and unintentional leakage of waste into the ocean

- On preparation of laws and regulations to support Thailand action followed MARPOL Annex V. Rectification (Marine Department)

Achievements

Positive improvement

Türkiye

Enforcement of proper waste management system

- Environmental Law amendment
- The National Waste Management and Action Plan (2016-2023)

  The National Waste Management and Action Plan (2016-2023) was prepared in 2017 in order to reduce and limit the amount of waste going to landfills throughout the country and to determine the targets and facilities needed for waste recovery, recycling and energy production.

  Revision studies have been initiated for the years 2023-2035 in order to harmonize the National Waste Management and Action Plan (2016-2023) with the circular economy approach, to increase and disseminate separate collection at source, and to determine recovery and disposal methods.

  In accordance with the Zero Waste Regulation (Official Gazette dated 12 July 2019 and numbered 30829), Provincial Zero Waste Management System Plans were prepared in 2020 by 81 provinces with under the

chairmanship of Governors and accepted by the decision of the Local Environment Boards. Provincial Zero Waste Management Plans contain the issues regarding the establishment of a zero waste management system within the province taking into account the local characteristics and current conditions, short and long-term targets together with the strategies and policies at the provincial level, planning and goals for increasing recovery through separate collection at source and training & awareness raising activities.

Municipalities are included in the Provincial Plans at the level of district municipalities responsible for the collection and transportation of waste, and at the level of provincial and metropolitan municipalities responsible for the establishment and operation of waste treatment facilities. In this direction, the current situation and needs in equipment and infrastructure have been revealed, especially civic amenity centers, waste collection methods and waste collection points (including waste drugs from households) are considered within the scope of Provincial Plans. In addition, the current situation of the infrastructure and future planningfor the buildings such as health institutions, educational institutions, public institutions and organizations, industrial enterprises, tourism facilities throughout the province are also included in the Provincial Plans.

By the Environmental Law amendment published in the Official Gazette No. 30621 and dated10.12.2018, Additional Article-11 titled “recycling contribution share” came into force in order to regulate the collection of recycling contribution share from the producers and importers of the products listed in the Annex-1 of the law. All packaging including plastic bags, tires, accumulators, batteries, mineral oil, vegetable oil, medicine, electrical and electronic equipment and beverage packaging are included in the Annex-1.

The Recycling Contribution Share which is an incidence of “polluter pays” and “extended producer responsibility” principles aim to finance the development of the waste management infrastructure and to meet the necessary expenses for collection, transportation and recycling of packaging and other special wastes as well as encouraging the reduction of waste generation.

The Regulation on Recycling Contribution Share prepared by our Ministry was published in the Official Gazette dated 31/12/2019 and numbered 30995 (4. Repeating) and was put into effect as of 01/01/2020.

According to the revision on Turkish Environmental Law (Additional Article-No.12) In order to prevent environmental pollution, the Ministry obliges the deposit application for the packages and products to be determined as of 1/1/2022. Accordingly, sales points that sell the products covered by the deposit are obliged to participate in the deposit collection system.

Achievements

Positive improvement

UAE

Enforcement of proper waste management system

- Federal law No.12 for the year 2018 on the integrated waste management.
- Cabinet Decision No. 39 for the year 2021 regarding the executive regulations of Federal law No. 12 for the year 2018 on the integrated waste management.

Achievements

Positive improvement

Others

Implementation of the extended producer responsibility principle:

UK

Enforcement of proper waste management system

- The following acts and regulations are in place to enforce proper waste management:
  - Pollution Prevention and Control Act 1999. Regulation making powers for a pollution control system and for other measures to prevent and control pollution.
  - Environmental Protection Act 1990. Defines the structure and authority for waste management and control of emissions into the environment.
  - Environmental Permitting Regulations 2016. A framework for environmental regulation, guidance, compliance monitoring and enforcement tools.
- Port Waste

  The UK is undertaking a review of the current port waste reception facility regime to ensure it remains adequate and effective. The review will take into consideration best practices from other port waste reception facility regimes around the world and also identify any policy changes that may be required.
- Trapping or screening of drainage / rivers

  Many storm overflows which discharge into rivers or the sea from the combined sewerage system in England do have screens. The requirement for screens is set as a condition of the Environmental Permit for discharge.

  Trapping or screening drainage / rivers can result in the retention of solids and can create a maintenance issue. The preferred option is to deal with litter / flushed items at source, although not always practicable.”

Prevention of littering, illegal dumping, and unintentional leakage of waste into the ocean

- The UK is a signatory to the International Convention for the Prevention of Pollution from Ships (MARPOL) under the International Maritime Organisation (IMO), the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. MARPOL Annex V seeks to eliminate and reduce the amount of garbage being discharged into the sea from ships and includes a ban on the disposal into the sea of plastics and fishing gear, in addition to other types of garbage.

  The UK's Regulations on the Prevention of Pollution by Garbage from Ships 2020 (S.I. 2020/621) brings in the International Convention for the Prevention of Pollution by Garbage from Ships (MARPOL Annex V) into UK law.

  Under the Regulations, discharge of all garbage into the sea is prohibited with very limited exceptions. In all cases the discharge of plastic is prohibited.

  The Regulations require fishing vessels to record the discharge or loss of fishing gear in the Garbage Record Book or ship's logbook, and require fishing vessels to report the accidental loss or discharge of fishing gear which poses a significant threat to the marine environment or navigation.

  Under the Regulations it is an offence to fail to report the discharge of fishing gear which poses a significant threat to the marine environment or navigation to (a) the ship's flag State and (b) any coastal state who has jurisdiction over the waters where the loss or discharge occurs.

  The UK's Port Waste Reception Facilities Regulations (S.I. 2003/1809) put legal obligations on ports and vessels to manage ship generated waste. All ports and terminals must provide adequate Port Waste Reception Facilities for waste generated by ships. Ships including fishing vessels are required to deliver their ship generated waste to the port waste reception facilities. The UK will be carrying out a review of the current UK regulations on Port Waste Reception Facilities which will commencing in 2021.

- Links to regulations

  The Merchant Shipping and Fishing Vessels (Port Waste Reception Facilities) Regulations 2003 (S.I. 2003/1809), further information can be found here.

  https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/899732/MGN_563_Amendment_1_R0720.pdf

  The Merchant Shipping (Prevention of Pollution by Garbage from Ships) Regulations 2020 (S.I. 2020/621), further information can be found here.

  https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/919758/MGN_632_-_Amendment_1.pdf

- Plastic pellets

  Plastic pellets (nurdles) are the basic feedstock used in the production of plastic items. They can be lost from the supply chain and enter the environment. It's estimated that up to 53 billion nurdles are lost each year, and they are one of the biggest sources of microplastic in the marine environment. To address this issue, the administrations supported the development of a Publicly Available Specification developed by the British Standards Institution, which sets out how any business handling or managing pellets can reduce pellet loss. This is the first of its kind and was published in July 2021.

  We have worked across the British-Irish Council, OSPAR and the plastics industry to support the development of an international certification scheme to implement the fundamental requirements of this standard, ensuring that pellet loss is prevented and any accidental spills are cleaned up effectively.

  In 2019, the British Irish Council Ministers recognised the need to address pellets as a source of microplastics and committed to learn from a trial supply-chain approach in Scotland.

Others

- The Government's Resources and Waste Strategy for England committed to review and consult on framework of policy measures such as Extended Producer Responsibly and product standards for five waste streams including fishing gear and textiles.

US

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

EPA Marine Litter Related Voluntary Work

- Trash Free Waters

  Trash Free Waters is a voluntary program that emphasizes stakeholder engagement to assist U.S. and international communities with addressing primarily land-based sources of marine litter. Within the United States, there have been well over 200 place-based projects that have been or are being implemented. These include projects addressing outreach/education, trash capture, source reduction efforts, monitoring, research, and more. Trash Free Waters also develops tools and resources that provide useful information to help stakeholders keep trash out of waterways. Tools include a best practices compendium so that municipalities, NGOs, and others can get information on costs and effectiveness of various management practices; a litter control policy and program document for the Gulf states; a Trash Stormwater Permit Compendium outlining effective stormwater permit trash provisions for use by stormwater permit writers and stormwater planners; and a trash assessment protocol that allows for detailed characterization of trash pollution to inform management practices, permit provisions, and impaired waterbody listings; in addition to other information resources.

URL:

https://www.epa.gov/trash-free-waters/aquatic-trash-prevention-national-great-practices-compendium

https://www.epa.gov/sites/production/files/2017-02/documents/atlas_of_gulf_states-litter_control_policy_and_programs.pdf

https://www.epa.gov/sites/production/files/2021-06/documents/ms4_trash_compendium_april_2021_final.pdf

https://www.epa.gov/trash-free-waters/epas-escaped-trash-assessment-protocol-etap

- NOAA Marine Debris Program Prevention Grants

  NOAA's Marine Debris Program supports projects across the country that use outreach and education as a way to prevent marine debris. These projects aim to change behavior, especially among youth, and provide them with hands-on experiences that deepen their understanding of the marine debris problem. Additional projects support engagement with industry partners to reduce the loss of fishing gear, and the occurrence of abandoned and derelict vessels.

Achievement

- Marine Debris Act

  Development of ten subnational (US state or regional) action plans to coordinate and spur local action to address marine debris.

  Development of ten emergency response guides to aid local US authorities in preparing for severe marine debris events, from storms, hurricanes, etc., and to assist in faster responses to such events.

Others

International Cooperation

- Waste Prevention & Strengthening Recycling (USAID)
  - Save Our Seas Initiative - In June 2022, USAID launched a new global flagship initiative to combat ocean plastic pollution globally—the Save Our Seas Initiative. The initiative will include $62.5 million in initial funding to support 14 country and regional programs in key countries and regions that represent 40 percent of total global mismanaged plastic waste. The Save Our Seas Initiative builds on successes and lessons from USAID's experience implementing ocean plastics solutions on the ground over the past six years, while scaling these approaches within key countries and to additional geographies for greater impact. Specifically, the Save Our Seas Initiative draws on effective methods for reducing mismanaged waste in partner countries developed under USAID's existing global program Clean Cities Blue Ocean; leverages the expertise and relationships of our field Missions to expand country-level and regional programs to scale these efforts; and catalyzes greater private sector, donor, and interagency funding and partnerships to crowd-in additional funding.
  - Clean Cities, Blue Ocean (CCBO) – As part of the Save our Seas Initiative, Clean Cities Blue Ocean is a five-year USAID global program that works in 25 cities and towns across seven countries (Philippines, Vietnam, Indonesia, Sri Lanka, the Maldives, the Dominican Republic, and Peru) to build and advance circular economies and reduce ocean plastic pollution. Through a combination of technical assistance and grants, CCBO works to improve solid waste management systems in cities and municipalities that are at the heart of the global plastic pollution crisis, build capacity and commitment for the 3Rs (reduce, reuse, and recycle), and promote sustainable social and behavior changes. In support of these objectives, the program partners with local and multinational corporations to effectively leverage private sector expertise, investment, and supply chains. Because they are a vital part of the waste value chain and key to the creation of a circular economy, CCBO also economically empowers informal waste collectors, especially women, through building capacity, providing access to credit, and facilitating safe working conditions.
  - Municipal Waste Recycling Program (MWRP) – USAID reduces land-based sources of marine plastic pollution by supporting local organizations through grants and technical assistance in Indonesia, Philippines, Sri Lanka and Vietnam to improve solid waste management and waste recycling efforts. Under MWRP, USAID has supported 30 grants focusing on three priority areas: 1) strengthening capacity of local actors and their collaboration, 2) introducing locally appropriate innovations and improving decision making, and 3) supporting engagement with the private sector for developing and implementing market-driven solutions to marine plastic pollution and strengthening the recycling value chain. The scope of the grants ranges from community-led awareness raising and education campaigns to improving working conditions of informal waste collectors, engaging and empowering women, collaborating with the private sector, and supporting local governments in their efforts to collect and manage waste sustainably.
- Infrastructure Investment (USAID):
  - Development Finance Corporation (DFC) partial loan guarantee for Circulate Capital – USAID signed an agreement with Circulate Capital to provide a $35 million, 50 percent loan-portfolio guarantee through DFC to incentivize private capital investment in the recycling value chain in South and Southeast Asia. The agreement leverages more than $100 million from a private-sector investment strategy managed by Circulate Capital, a firm dedicated to incubating and financing companies and infrastructure that prevent ocean plastic that is backed by multinational corporations, including PepsiCo, Procter & Gamble, Dow, Danone, Unilever, and Coca-Cola.
  - USAID Partnership with the Alliance to End Plastic Waste - In 2020, USAID launched a partnership with the Alliance to End Plastic Waste, a coalition of more than 40 leading companies that have committed to invest $1.5 billion toward solutions to end plastic waste. The Alliance brings together companies from across

the globe involved in all stages of the plastics value-chain — including businesses that make, use, sell, process, collect, and recycle plastics, as well as retailers and consumer-goods and waste-management companies. Through the partnership, USAID and the Alliance will deploy innovative, locally appropriate technologies, infrastructure, and business models to improve waste-management and recycling in cities and communities at the heart of the crisis in ocean plastics pollution. The partnership will also work to improve the livelihoods, health, and safety of waste workers — both formal and informal.

- Cartagena Convention Land-Based Sources Protocol for the Wider Caribbean Region

  The Protocol is an agreement under the Cartagena Convention that obligates Contracting Parties to address pollution from marine litter, nutrients and wastewater. The US is a Contracting Party ot the CC and LBS and US EPA Chairs the Open-Ended Working Group that advises the Secretariat on efforts aimed at these issues.

- Asia Pacific Economic Cooperation Forum Engagement

  The United States Department of State worked closely with industry and NGO partners to focus attention on combating marine debris using environmentally sound waste management best practices, innovation, and outreach in APEC. The USEPA is also overseeing an APEC project on “Enhancing source separation and segregation of waste” as a means to address marine plastic litter in the APEC region. The project includes an implementation guide that takes waste practioners step-by-step through establishing a labor-intensive separate waste collection and utilization system in small-to-medium sized cities in APEC region. This is accompanied by a case study of a project in Vietnam that exemplifies this approach as well as a virtual waste symposium to educate officials in APEC region on the implementation guide as well as case studies of similar approaches throughout the region.

- Global Ghost Gear Initiative Engagement

  The GGGI is seen as the preeminent global organization comprised of national governments, NGOs, and industry with the objective of combating abandoned, lost, or otherwise discarded fishing gear.

- Department of State Marine Debris Grants

  The United States Department of State has administered over four million dollars in grants aimed at helping address marine debris from both land and sea-based sources.

- NOAA support to Urban Ocean Initiative

  NOAA’s Marine Debris Program is supporting the Urban Ocean Initiative, an effort led by the Ocean Conservancy, an international marine environmental NGO, to better address land-based debris resulting from urban environments. This initiative will provide a platform for select city governments around the world to connect with one another as well as with community leaders, academia, and the private sector to develop, share, and scale solutions to the ocean plastics crisis.

Achievement

International Cooperation

- Solid Waste Management and Inclusive Capacity Building- Trash Free Waters

  Jamaica - Prioritize marine litter and solid waste management needs and develop projects and activities, including: procuring bins in Whitehouse-Bluefields communities; training schools and local staff in placing them and using the bins; and educating the general public about the impacts of trash.

  Panama - Prioritize marine litter and solid waste management needs and develop projects and activities, including: identified included public awareness raising on solid waste management and the impacts of trash with local schools and universities. The project also included installation of a river trash boom on the Juan Diaz River.

  Peru - Stakeholder workshop held involving over 70 participants. The pilot project identified for Chincha addressed solid waste management through helping two communities segregate and selectively collect at the source in order to recover more valuable recyclable material and prevent that material from entering waterways and the ocean.

- Additional solid waste management capacity building projects in Southeast Asia

  Philippines – Capacity building in six barangays in Metro Manila for low-tech equipment needed to promote collection and segregation of waste at each barangay. Project includes training and other needs for installation and proper, sustained use.

  Vietnam – Expanding existing waste collection and segregation to two additional urban wards in Tan-An city to leverage WWF’s current project as part of their Plastic Smart Cities initiative.

  Malaysia- Increasing recovery of recyclables in the Mersing Island archipelago through training of local stakeholders to segregate and collect waste at households and resorts. Project will build a small waste transfer facility, procure waste bins and raise public awareness through a partnership with local resorts.

  Indonesia – Project will enhance operation of a Community-based materials recovery facility (MRF) by adding two waste bank units to Makassar City. This includes training for users as well as procurement of standard equipment. In parallel, will also support a social enterprise startup to produce recycled products from single-use plastic items.

- Additional international efforts

  Trash Free Waters International Implementation Guide – USEPA developed tool that provides step-by-step guidance in establishing a Trash Free Waters (TFW) program and projects. TFW is EPA's participatory framework in involving stakeholders at the national, state, and local levels in decision-making for solutions to address marine, coastal and watershed issues related to marine plastic litter, as well as identifying and executing improvements to solid waste management.

  Regional Landscape Analysis – USEPA and partner is working with the Coordinating Body for the Seas of East Asia (COBSEA) Secretariat to compile best practices addressing plastic pollution though improved solid waste management in the Southeast Asian region. The compilation will feature 15 best practices across the government, private sector, and NGO spectrum.

- Strengthening the Connection Between Marine Litter and Solid Waste Management

  Central America and Dominican Republic Trade Agreement and Panama Free Trade Agreement - Through an interagency agreement with the Department of State, US EPA is working with the national governments of Panama, Costa Rica and the Dominican Republic to engage all stakeholders in identifying solutions to the marine litter problem through improvements in solid waste management. Activities include virtual national dialogues, assisting in their development of national action plans for marine litter, and on-the-ground projects that support the countries' own efforts. US EPA has completed 2 of 3 planned workshops on landfill management in Panama and Costa Rica, with the next one planned for the Dominican Republic in late summer 2021.

- Stormwater Runoff and Marine Litter Prevention - Commission for Environmental Cooperation (CEC)

  The U.S., Canada and Mexico are implementing projects to reduce marine litter along the transboundary watersheds since 2017. The current CEC project on marine litter includes developing a toolkit and training guide for decision makers on the stakeholder engagement process developed and implemented by the CEC, and developing a Public Awareness Toolkit that will provide ready-to-use, adaptable (plug and play) materials to municipalities, NGOs, educational institutions and other organizations to deliver litter prevention programs and public awareness campaigns. The Toolkit for Decision-Makers is expected to be finalized soon and associated trainings will be conducted. The Public Awareness Toolkit is targeted towards inland communities, including urban inland areas. The messaging will focus on water and trash flow, the full life cycle of a product, and concrete actions that offer individual solutions.

- Waste Prevention & Strengthening Recycling (USAID)

  - USAID's Clean Cities Blue Ocean Program

    To date, Clean Cities, Blue Ocean has secured over 43,000 tons of plastic and other materials (the equivalent of over 4.6 billion plastic bottles) from leaking into the environment; safely managed over 300,000 tons of waste and recyclables, recovering and diverting nearly 90 tons of waste from landfills; trained over 900 individuals from local government, the informal waste sector, and local organizations to build local capacity for solid waste management planning and programs; directly impacted over 4.8 million individuals who have experienced improved air and water quality as a result of landfill remediation activities or have improved access to waste services as a result of new local businesses and organizations. Clean Cities Blue Ocean has also awarded over $3.1 million in grants to local partners to implement effective, locally-led solutions; mobilized over $4.1 million in additional investments for improved solid waste management systems and infrastructure; and formed strategic partnerships with local governments; private sector partners, including Nestle Philippines, the Coca-Cola Foundation, and the Alliance to End Plastic Waste; and groups including the Metro Manila Development Authority and World Bank, to build sustainable, circular economies.

  - USAID's Municipal Waste Recycling Program

    From 2016 to 2021, USAID's Municipal Waste Recycling Program supported 30 grantees with $5.5 million USD in 32 locations across Indonesia, the Philippines, Sri Lanka, and Vietnam. The program partnered with more than 40 local governments and over 100 local businesses and organizations. The impacts of these activities include improving access to Solid Waste Management and recycling services for over 3.8 million people, with additional 5.4 million indirect beneficiaries. The program diverted 20,600 metric tons of plastic waste from the ocean and supported the development of over 60 new and improved laws and regulations to reduce future ocean plastic pollution.

- Infrastructure Investment (USAID):

  Development Finance Corporation (DFC) partial loan guarantee for Circulate Capital- Circulate Capital made its first loan utilizing the USAID-DFC loan guarantee in April 2020 to a woman-owned recycling company in Indonesia for facility expansion. The Fund has invested over $40 million to seven companies in India and Indonesia, with more to come.

- Cartagena Convention

  This year, the LBS Protocol will publish a report, entitled "State of the Convention Area Report" (SOCAR) that will be the first ever baseline data of information regarding coastal water quality that reflects national data rather than extrapolated from global assessments.

- Global Partnership on Marine Litter

  NOAA staff serve on the GPML Steering Committee to help guide its work. US EPA is financially supporting the development of a digital platform to share information on marine litter and plastics on a global level.

- Striving for Increased Public Participation in Environmental Protection in Central America through a Small Grants Program with Civil Society Organizations

  To date, this Department of State program provided training to over 5,000 people, with 160 people actively involved in community-based initiatives. This initiative strengthened solid waste management capacity in 10 communities through training 61 municipal employees and authorities, resulting in the improved management of over 3,500 tons of solid waste, including 43 tons of plastic waste recycled.

- Asia Pacific Economic Cooperation Forum

  Successes included receiving endorsement from APEC members for a revision to a 2009 report on the direct economic costs to APEC economies due to marine debris. The report revises estimates of the direct costs of marine debris to member economies to support arguments to strengthen regulatory and non-regulatory actions. DOS also developed a marine debris management and innovation sub-fund and contributed US $800,000 to the fund. The fund will serve as a dedicated resource for APEC projects aiming to tackle the marine debris problem. DOS continues to engage major source countries in Southeast Asia to encourage policy changes needed to prevent and reduce marine debris. There are four projects that have been approved by APEC member economies to address and better understand marine debris in the APEC region. The United States, through DOS, NOAA, EPA, and FDA, implements projects to better understand and address many aspects of the marine debris/marine plastic litter issue through the APEC Oceans and Fisheries Working Group, including through implementation of approved APEC projects.

- Global Ghost Gear Initiative Engagement

  In 2020 the United States joined the GGGI as a government member and is working with the organization to combat ghost gear globally through promotion of the voluntary gear marking guidelines developed by the FAO with input from the GGGI.

- United States Department of State Marine Debris Grants

  The Department of State has provided several grants that help address different aspects of the marine debris issue. One example is a grant provided to the Center for Community Health Research and Development which implemented a project titled, “Social Mobilization For Marine Waste Management”, which aimed to reduce marine debris via social change in Ly Son Island, Vietnam. The project has established a local steering committee on environmental protection; delivered 50 new public waste receptacles; gathered more than 300 people to clean 15km of coast; collected 500kg plastic waste; trained 50 people in waste collection and processing; trained 45 community leaders in communications skills; trained 600 households in proper waste sorting, resulting in a ten-fold increase in the percentage of households practicing proper waste sorting; and provided 3,000 households with reusable shopping baskets to replace single-use plastic bags.

- Additionally, grantee WWF Peru implemented the project titled, “Making a business out of a problem: Creating a circular economy for abandoned, lost, and discarded fishing gear in Peru,” with the intent to prevent and reduce the amount of Abandoned, Lost, or otherwise Discarded Fishing Gear (ALDFG) entering Peru’s coastal waters by collecting and recycling end-of-life fishing gear. The project launched net collection programs in three communities, obtained signed letters of commitment from the three largest anchoveta fisheries in Peru (Tasa, Copeinca, Austral), and secured a supply of more than 200,000 kg annually of end-of-life fishing nets for recycling.
- DOS worked with grantee Ocean Conservancy on the development of the project titled “Implementing Best Practices for Fishing Gear Management to Reduce and Prevent ALDFG in the Caribbean Region,” to reduce and prevent the incidence of abandoned, lost, or otherwise discarded fishing gear (ALDFG) in Jamaica and Dominica. The grantee incorporated the Global Ghost Gear Initiative Best Practices Framework into the COAST checklist for incentivizing good fisheries management practices through an insurance product, and made progress toward implementing the framework; developed innovative fishing gear and gear marking technologies to prevent ALDFG and facilitate gear recovery; and gathered information on the most prevalent types of ALDFG in Caribbean nations to develop a standardized gear retrieval protocol.
- DOS supports innovative technologies and approaches to combatting marine debris through our grants. This includes grantee WWF-Hong Kong, who developed a project titled “All Hands on Deck - A Community-Based Marine Litter Reduction Programme”, which conducted three coastal cleanup activities, three community fora, selected three types of alternative fish boxes to be tested by the fishing industry to reduce polystyrene marine debris, and engaged the major players (including fishery and seafood industries, and manufacturers of boxes) to obtain support to change from polystyrene to alternative boxes.
- Another grantee, The Global Knowledge Initiative (GKI), developed a project called “Building Ecosystems to Reduce Waste in Our Oceans - Ocean Plastic Prevention Incubators”. GKI, and subgrantees SecondMuse and Circulate Capital, aim to reduce marine debris by building effective waste management and plastic recycling economies in Indonesia and the Philippines. The grantees have drafted three case studies and one policy guideline; hosted a workshop that led to the establishment of a stakeholder meeting forum; planned a public Plastics Festival in Surabaya to raise awareness; and built a database of more than 200 waste and recycling operators and potential partners.

- Basel Plastic Waste Partnership

  The Plastic Waste Partnership was established at the 14th COP to the Basel Convention and held the first meeting in March 2020. The goal of the PWP is to significantly reduce and in the long-term eliminate the discharge of plastic waste and microplastics into the environment, in particular the marine environment. Four project groups were established to begin work focusing on: plastic waste prevention and minimization; plastic waste collection, recycling and other recovery including financing and related markets; transboundary movements of plastic waste; and outreach, education and awareness-raising. The US engages in all four project groups and is preparing for the 2nd PWP meeting June 14-16, 2021.

- U.S.-Mexico-Canada Agreement

  In 2020, the new U.S.-Mexico-Canada Agreement (USCMA) free trade agreement went into effect between the three nations. This agreement continues the already strong collaboration between these governments to address marine debris in North America. In 2020, the U.S. also passed domestic legislation that provided $8 million in funding to NOAA's Marine Debris Program to address marine debris in North America of which NOAA is allocating $4 million in 2021 on marine debris projects in the region. This legislation also provided EPA with $4 million in funding to address marine debris, and other environmental issues through the trilateral Commission on Environmental Cooperation.

EU

Enforcement of proper waste management system

- EU Waste Framework Directive

  In relation to waste management, the EU Member States have implemented effective separate (household) collection schemes and have built in economic incentives for better waste treatment (e.g. landfill/ incineration charges) as well as Extended Producer Responsibility (EPR) schemes.

  In May 2018, the EU revised its waste legislation to make it fit for the future. In the context of the prevention of waste, the revised EU Waste Framework Directive requires Member States to identify products that are the main sources of littering, notably in natural and marine environment, and take appropriate measures to prevent and reduce litter from such products. The Directive also requires Member States to develop and support information campaigns to raise awareness about waste prevention and littering. In the future, Member States management plans will have to contain measures to combat and prevent all forms of littering and to clean up all types of litter. With regard to enforcement, they are required to take the necessary measures to prohibit the abandonment, dumping or uncontrolled management of waste, including littering.

Achievements

Positive improvement

Prevention of littering, illegal dumping and unintentional leakage of waste into the ocean

- Directive on Port Reception Facilities(EU) 2019/883

  The Directive covers all waste from ships, with a special focus on addressing marine litter originating from shipping, including from the fishing and recreational sectors. To this end, the Directive provides for a mix of incentives and enforcement measures to maximise waste delivery on shore to adequate port reception facilities, where the waste should be properly managed (e.g. through separate collection). The Directive strengthens the financial incentive for delivery by providing for a 100% indirect fee for garbage (MARPOL Annex V waste) to be paid irrespectively of volumes delivered. This fee gives all ships a right to deliver all garbage waste, including waste fishing gear and passively fished waste, without facing any further additional fees.

  This should result in a robust framework to tackle (plastic) waste from ships and to ensure that port reception facilities are available for the management of this waste in line with the principles of the Circular Economy.

  Member States shall ensure that monitoring data on the volume and quantity of passively fished waste are collected and reported to the Commission. The Commission Implementing Decision laying down the rules for the monitoring data methodologies and the format for reporting passively fished waste was adopted in January 2022.

  URL: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022R0092

International Organisations and NGOs

ADB

Proper waste management

- The project (TA-0044) aims to implement two pilot demonstration projects (one in Cirebon, Indonesia, and in Tan An, Viet Nam) on solid waste management approaches to reduce marine plastic pollution. The pilot projects will (i) promote the separation of wet and dry waste at the household level (source segregation) and the further separation of high-value plastic in a closed loop collection and recycling system, thereby creating favorable conditions for further processing or use of plastics; (ii) utilize digital technologies for waste reduction and high-quality recycling; and (iii) build partnerships with local reprocessing and recycling companies to implement circular business models.
- Numerical data – Implementation firm will commence work by 1 September 2022. More details will be shared in the next report.

ERIA

Proper waste management

- Information sharing on "Proper Treatment and Disposal" in the ASEAN+3 context on the RKC-MPD website.

  Related link:

  https://rkcmpd-eria.org/practices/Government-Initiatives/management/proper-disposal

Prevention of littering, illegal dumping and unintentional waste into the ocean

- Information sharing with regards to "Preventing Littering" and "Waste Reception Facility at Port" in the ASEAN+3 context on the RKC-MPD website

  Related link:

  https://rkcmpd-eria.org/updates/ERIA-and-AIT-Launched-a-Project-on-Plastic-Leakage-Prevention-from-Factories-and-Informal-Recycling-Sector-

  https://rkcmpd-eria.org/practices/Government-Initiativesmanagement/preventing-littering

  https://rkcmpd-eria.org/practices/Government-Initiatives/management/waste-reception-port

UNDP

Proper waste management

- At the national level, UNDP has supported several waste management projects. For instance, in Zambia, UNDP provided a grant of USD621,000 to support waste management. The overall goal of the project was to improve waste management and recycling practices while creating opportunities and employment for women and youth led enterprises. The project supports impactful entrepreneurship and business acceleration opportunities of young people, especially young women, through a socialized model of waste collection and recycling. This includes provision of skills development, technical support, assistance and advisory support to access financial education and resources, mentorship to youth-led start-up companies and MSMEs, with a focus on innovative business models that empower people and deliver sustainable solutions. Specific project activities include: Development of a digital application linking waste collectors with aggregators and waste aggregators to manufacturers, to keep track of volumes and money received for sale of recyclable materials. The application captured the gender and age of the collectors.; Innovation challenge of $5,000 for 10 companies to employ circular economy approach to waste management, including price ceremony; Development of a mobile application to educate consumers, private sector about the benefits of circular economy. There was competitive process for young females to develop the application, linked to the "Girls in ICT" initiative UNDP supports.; Development and implementation of a comprehensive communication plan, including awareness campaigns with a series of activities (offline, online and events) to sensitize citizens, private sector and other key stakeholders including the public sector.
- At the community level, SGP through its whole-of-society approach to waste management has supported several communities to improve plastic waste management across the value chain. This has been achieved through initiatives that strengthen policy formulation and enforcement, provision of waste management infrastructure, and cleanups, awareness raising and advocacy. These initiatives have connected key stakeholders in the waste management value chain to promote waste recovery in a larger circular economy context, improved stakeholder awareness, stimulated green business ideas and triggered behavior changes regarding waste management. New partnerships have been created, e.g., Coca Cola have engaged a local start-up for collection of plastic waste with involvement of informal sector. These activities and support to informal waste pickers are contributing to improved waste management in Ghana.

- UNDP, as another example, oversaw the implementation of a project on reducing plastic waste in Indonesia (2016-2021) financed by the Global Environment Facility: "Reducing Releases of Polybromodiphenyl Ethers (PBDE) and Unintentional Persistent Organic Pollutants (UPOPs) Originating from Unsound Waste Management and Recycling Practices and the Manufacturing of Plastics in Indonesia'', with the Ministry of Industry of Indonesia as the Implementing partner, with a total budget of ca. USD 20 million and a GEF grant of USD 3.99 million. The project demonstrated the importance and benefits of segregating early in the process different types of plastics by the waste pickers for the economic validity of recycling; it demonstrated successfully
- the creation of micro-depots collecting plastic waste for recycling purposes, operations which avoided the creation of plastic marine litter. One of the lessons leant regarded the conditions for successful treatment of PBDE-containing plastics with participation of the informal sector: considering that any plastic waste collected by a waste picker/recycler, is a means of livelihood for them and their preference would be to sell it to the recycling industry to recover the cost of collection and some earnings, it is recommended that any project designed for the elimination of POPs (including PBDE)-containing material, provision is made for the cost of collection and safe disposal of these materials. Another key lesson was that management of the waste in a given urban area is the responsibility of the local government. To ensure effective implementation of management of waste-related projects, the local governing bodies (municipal corporation/provincial government/ other local governing bodies) should be included in the administrative set up for implementation of the project. UNDP built on this recommendation by making municipalities and local governments key partners in its Zero waste initiative and main recipients of the information and services of its future Zero waste clearinghouse.
- The OIC-supported Duke University's Global Plastic Policy Database looks at both numbers of plastic and waste policies collected and reviewed. Fortuna Cools is promoting the reduction of polystyrene-based insulation by replacing it with coconut husk-based insulation. The Comoros Country Office's buyback center will reduce plastic waste by establishing buyback centers. OneSea in Costa Rica is promoting the adoption of legal actions and enforcement by the parliament for waste management from cigarette butts, micro plastics, single use plastics, and ghost fishing gear. For the Maldives, the integration of the Extended Producer Responsibility scheme they are preparing into the national Waste Act will help reduce the amount of plastic wastes in the country as well as plastics imported.

Prevention of littering, illegal dumping and unintentional waste into the ocean

- In Trinidad and Tobago, SGP supported Castara Tourism Development Association (CTDA) to implement a project that contributed to substituting about 10,000 Styrofoam boxes and other plastics with more environmentally friendly alternatives. This project helped in diverting about 1,000 gal of harmful detergents and 40,000 plastic bags from entering water bodies. The provision of waste collection bins, and awareness creating and recycling initiatives, through SGP, has contributed to reducing littering in more than 200 communities across several countries.
- OIC-supported Duke University's Global Plastic Policy Database looks at both the number of plastic and waste policies collected and reviewed. Fortuna Cools is promoting the reduction of polystyrene-based insulation by replacing it with coconut husk-based insulation. The Comoros Country Office will reduce plastic waste by establishing buy-back centers. OneSea in Costa Rica is promoting legal and policy enhancement and enforcement to the parliament for improved waste management from cigarette butts, microplastics, single plastics, and ghost fishing gears. In the Maldives, adelphi is getting the EPR scheme they are developing embedded in the national Waste Act.

UNEP

Prevention of littering, illegal dumping and unintentional waste into the ocean

- Global Tourism Plastics Initiative (GTPI), a tourism sector interface of the new Plastics Economy Global Commitment (led by UNEP and UNWTO with technical support of Ellen Mac Arthur Foundation) – unifies tourism sector behind the common vision of circular economy of plastics and operates by gathering actionable and ambitious commitments and targets from tourism stakeholders and monitoring their implementation through annual and mandatory reporting.
- Numerical data

  In the second half of 2021, GTPI organized a first pilot reporting campaign for large companies that joined the Initiative in 2020 and for which annual reporting is mandatory. Six accommodation providers (Accor, Club Med, Hong-Kong and Shanghai Hotels, Iberostar, Melco, Six Senses) and one supplier (deSter, member of gategroup) participated in the reporting exercise. Key insights from accommodation providers are:

  - Over 108 million plastic items and packaging have been eliminated in 2020 across the reporting businesses.
  - Plastic items and packaging eliminated in 2020 represent a weight of 804 metric tonnes.

- Promising progress has been made, especially in the elimination of unnecessary and/or problematic plastic items and packaging in food and beverage services, where about 34 million plastic items and packaging (>352 metric tonnes) were eliminated; and in bathrooms, with about 74 million of eliminated plastic items and packaging (>451 metric tonnes). Positive efforts are also ongoing to eliminate plastic items and packaging in service areas and rooms.
- Second reporting exercise will start in October 2022. All GTPI signatories that committed in 2020 and 2021 will be invited to report (including SMEs). Currently the Initiative has 120 signatories.

UNIDO

Proper waste management

- UNIDO project "Support for transitioning from conventional plastics to more environmentally sustainable alternatives" in South Africa supports strengthening the plastic recycling capacity of South Africa by encouraging implementation of the national guidelines of waste picker integration, and promoting EPR schemes, in order to increase collection of better-quality recyclables.
- UNIDO's other project "Promoting sustainable plastic value chains through circular economy practices" supports the Federal Ministry of Environment of Nigeria, and State governments and pilot local municipalities. The project has three lines of activities, which interact with each other: 1) Support development of implementation guidelines of the national policy on plastic waste management; 2) Support to strengthening recycling capacity at target municipalities through reinforcing the value chain system, including provision of necessary equipment and pilot implementation of the guidelines on plastic waste management; and 3) demonstration of circular economy and resource efficiency practices, including recycling system and innovative technology, at pilot companies or institutions to showcase their benefits
- The project "Integrated approach towards sustainable plastics use and (marine) litter prevention in Bangladesh" supports the Government of Bangladesh on improving waste management through baseline assessments, policy drafting and implementation to reduce littering and reduction in use of plastics by citizens. The project also targets short-lived consumer products that generate micro-plastics (e.g. cosmetics and garments) via a combination of Design for Environment and Resource Efficient and Cleaner Production practices.

3.3. Clean-up of Marine Plastic Litter

Many countries collect scattered waste from beaches, with 29 countries reporting that they carried out this measure and 18 stated positive trend perception. Twenty-two countries remove plastic litter from the ocean, 11 countries report positive trend perception.

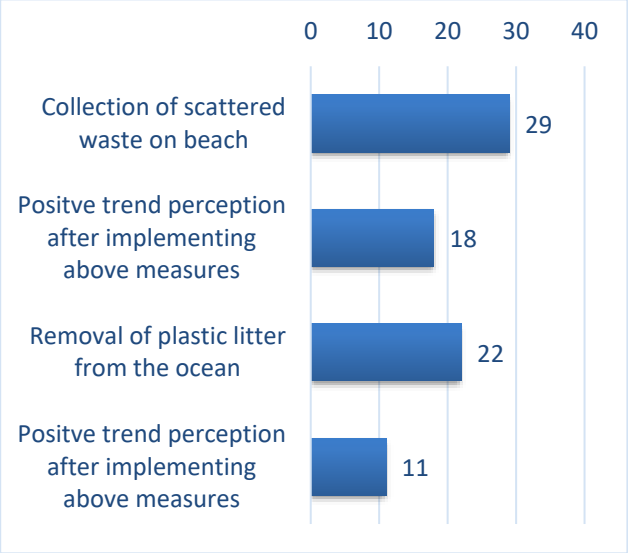

Figure 7: Countries – Clean-up of Marine Plastic Litter*

*Number of countries responded YES among 33 responses

Countries

Australia

Collection of scattered waste on beach

- Australian Government Ghost Nets Initiative: Indigenous Rangers Coastal Clean-ups Project

  As part of the the $14.8 million Australian Government Ghost Nets Initiative, work will be conducted with Indigenous ranger groups to collect data on the source of ghost nets and coordinate retrievals and marine debris beach clean ups in the Gulf of Carpentaria, one of the nation's hot spots for ghost nets drifting from foreign waters. On-ground activities under the Ghost Nets Initiative are being expanded from 2022 to additional Indigenous ranger groups in the gulf and other northern Australian hotspots.

- Environment Restoration Fund

  The Australian Government is investing $100 million, over four years from 2019-20 to 2022-23 through the Environment Restoration Fund. Projects delivered under the ERF focus on protecting threatened and migratory species and their habitat across Australia's coasts, oceans and waterways. ERF grants have been provided for beach and coastline clean-up activities, including AU$300,000 to Clean Up Australia Day and AU$5,000,000 to Conservation Volunteers Australia.

- Communities Environment Program

  The Communities Environment Program is a grant program that supports community-led projects to address local environmental priorities, including litter clean up events.

- CSIRO Ghost Nets Research

  Recent analysis by CSIRO demonstrated there is an increase in ghost nets across northern Australia, not a decrease (or positive improvement), across most of the country.

  https://parksaustralia.gov.au/files/ghost-nets/CSIROghostnetsreport_final.pdf

Achievements

Positive improvement

Removal of plastic litter from the ocean

- Australian Government Ghost Nets Initiative

  The $14.8 million Australian Government Ghost Nets Initiative addresses the challenge of ghost nets and plastic litter in the waters and beaches of the Gulf of Carpentaria. The initiative will be delivered over three years and will include actions targeted at removal of plastic litter from the ocean, including:

  - new technology to better detect, collect and dispose of ghost nets, including satellite tags and funding for the in-water retrieval of ghost nets;
  - work with Indigenous ranger groups to coordinate retrievals and marine debris beach clean ups and to collect data on the source of ghost nets in the Gulf of Carpentaria and northern coastline; and
  - investment in proactive steps to address the source of the issue with stakeholders and enable further research and coordination.

Achievements

Positive improvement

Brazil

Collection of scattered waste on beach

- Cleanups on beaches, rivers, mangroves and other water resources.

Achievements

- Positive improvement - From 2019 to June 2022, more than 460 cleanups have been carried out, with 37,080 participants and 278 tons of waste. There were collected 671.652 items, in which 370.629 plastic items.
- Numerical data: More than 460 cleanups carried out by several organizations on beaches, rivers, mangroves and lakes (2019-2022).

Removal of plastic litter from the ocean

- Marine underwater cleanups

Achievements

Positive impovement

Others

Combating Marine Litter App

Canada

Collection of scattered waste on beach

- Canada's comprehensive zero plastic waste agenda
- Zero Plastic Waste Initiative
- Ocean Wise Shoreline Clean-up

  Since 1994, the Ocean Wise Shoreline Cleanup (a.k.a. Great Canadian Shoreline Cleanup) has supported 30,542 cleanups involving 972,000 participants who have collected over 2.1 million kg of trash from 48,428 km of freshwater and marine shores in Canada.

Achievements

- Positive improvement
- Numerical data

  Zero Plastic Waste Initiative (2018-2022) across Canada:

  - ~325,000 kg of litter removed
  - >5,000 clean-up events
  - 61 capture devices deployed

  Ocean Wise Shoreline Cleanup, formerly the Great Canadian Shoreline Cleanup

  - In 2021, 19,508 participants completed 1,998 cleanups, resulting in the collection and removal of 31,522 kilograms of litter.

Removal of plastic litter from the ocean

- Canada's comprehensive zero plastic waste agenda
- Ghost Gear Fund

  Through the Canada-wide Strategy on Zero Plastic Waste and Action Plan, federal, provincial and territorial governments have also committed to work with fishing and aquaculture harvesters and industry to:

  - Develop requirements or best practices for the use of plastics in operations and increase reporting, tracking and retrieval of lost gear;
  - Address regulatory barriers to retrieve lost gear;
  - Support design, technologies and other innovations to prevent, mitigate and retrieve gear; and,
  - Evaluate best policy options to increase collection and end-of-life management of gear.

  Canada's Sustainable Fisheries Solutions and Retrieval Support Contribution Program investment of CA $8.3 million (2020-2022) supports the prevention and retrieval of abandoned, lost or otherwise discarded fishing and aquaculture gear. It will also support fish harvesters to acquire new gear technologies to reduce gear loss. This is the first fund of its kind that dedicates a significant source of funds specifically to combat ghost gear.

Achievements

- Positive improvement
- Numerical data

Chile

Collection of scattered waste on beach

- National Beach Cleaning Program.

  Through this program, marine debris are removed from the sea, beaches and lakes.

Achievement

- Positive improvement
- Numerical data: Every year 180 tons of waste are removed from the beaches. About 70% of this waste corresponds to plastics.

Removal of plastic litter from the ocean

Private fishing companies remove nets and fishing equipment from the sea

Achievement

- Positive improvement
- Numerical data: Between 2019 and 2022, 6,962 tons of fishing nets have been recycled.

China

Collection of scattered waste on beach

- Opinions on Further Strengthening Plastic Pollution Control

  The special cleanup of plastic wastes is carried out. The inspection and rectification of informal storage and dumping stations of domestic wastes shall be on fast track, focusing on plastic pollution caused by random dumping of domestic wastes in urban and rural areas, environmentally sensitive areas, roads and rivers, and pits and ditches. Operations to clean up plastic garbage in rivers, lakes and harbors and clean beaches are performed. The cleaning and remediation of residual mulch film on farmland, plastic packaging of pesticides, and fertilizers will be promoted to gradually reduce the amount of such films.

- Action Plan on Plastic Pollution Control (2021-2025)

  Special cleaning of plastic waste in bays, estuaries, beaches and other areas is carried out, coastal cities and counties are promoted to establish a long-term mechanism for marine plastic waste cleaning, and maintain free of obvious plastic waste in key coastal areas. Waste collection facilities are increase in places such as beaches, and the frequency of garbage removal and transportation is raised.

- Marine Ecological Environment Protection Plan (2021-2025)

  Plastic waste management is strengthened in both river and sea, special cleaning of plastic waste in bays, estuaries, beaches and other areas is implemented, and coastal cities and counties are encouraged to establish a long-term mechanism for marine plastic waste cleaning, so as to maintain free of obvious plastic waste in key coastal areas. We increase the waste collection facilities in the beach and other venues, and improve the frequency of garbage removal and transportation. We implement regular supervision of littoral and floating wastes, and improve the environmental quality of bay water bodies and beaches.

Achievements

Positive improvement

Removal of plastic litter from the ocean

- Opinions on Further Strengthening Plastic Pollution Control

  The departments of ecological and environmental protection along coastal areas are required to take the lead in cleaning marine litter and debris, and to take various actions to effectively prevent marine litter.

- Action Plan on Plastic Pollution Control (2021-2025)
- Marine Ecological Environment Protection Plan (2021-2025)
- Special Action Plan for Waste Cleaning in Rivers, Lakes and Seas (2022)

Achievements

Positive improvement

Colombia

Collection of scattered waste on beach

Plan de Gestión Integral de Residuos Sólidos -PGIR de municipios costeros (Integrated Solid Waste Management Plan -PGIR of coastal municipalities)

Achievements

It is important that the cleaning contract of the coastal municipalities include the municipal PGIR and that the cleaning of beaches is included in the contract.

Removal of plastic litter from the ocean

- Law 12 of 1981 by which the MARPOL 73/78 convention is adopted

  Prevention of pollution of the environment from ships

Costa Rica

Collection of scattered waste on beach

- Cleaning sessions

  Two days of cleaning in sectors of Pacific beach in the last year.

  Five days of cleaning of beach sector in the community of Cieneguita (Caribbean), in the last year.

Achievements

- Positive improvement - The cleaning days/sessions (directed and controlled by the Ministry of Environment, Direction of Environmental Quality Management- MINAE-DIGECA) have taken place within the framework of the actions that are developed both in the Caribbean and in the Costa Rican Pacific. It should be noted that there are also Organizations and Municipalities that coordinate beach cleaning events with the community and the help of volunteers.
- Numerical data
  - Two days of cleaning where 500 kilos of residues where collected, mostly plastics of all kinds.
  - In the five events developed in the Caribbean, 4.8 tons were collected with characterization of types of plastic and making use of the Methodological Guide for the Collection of Beach Residues, outlined above.

Removal of plastic litter from the ocean

Achievements

Positive improvement - Cleaning actions in the sea have not yet been developed. There are ideas and projects, with the fishermen who are being trained and sensitized both in the Pacific and in the Caribbean. On the other hand, together with private companies, government institutions and UNDP, biofences are being installed in rivers during this 2022 and 2023.

Fiji

Collection of scattered waste on beach

- Clean Up Campaign are carried out by communities, businesses along the foreshore/coastal areas
- Anti-litter sign boards on picnic areas/beaches
- Provision of skip-bins in strategic places

Achievements

Positive improvement

Removal of plastic litter from the ocean

Collection of MPL washed onshore.

Achievements

Positive improvement

France

Collection of scattered waste on beach

- Support clean-up campaign organized by NGOs on beaches and along the coastlines;
- Launch of the citizen science platform on marine litter to identify the clean-up actions taking place.

Achievements

- Positive improvement
- Numerical data
  - The platform gathers 355 organizations, 600 events were recorded in 2021 via the platform, with the participation of 18,775 people. These events resulted in the collection of 883 m^3 of waste, i.e. more than 65 tons of waste.
  - NGOs are financially supported each year.

Removal of plastic litter from the ocean

- France is leading fishing for litter.

  Fishing for litter consist of the retrieval by fishermen of litter collected accidentally during fishing operations. Progressively, France is transposing the directive 2019/883 of 17/04/19 on port reception facilities for the deposit of ship waste which ask countries to report the quantity of waste accidently fished.

Achievements

- No particular change
- Numerical data
  - Through the sampling of 4 ports, in 2021, fishing for litter would represent 166 m3 of waste per year (based on the collection of 47 trawls) (Source: Reseaclons 2022)
  - The call for projects to tackle plastic pollution in the oversea territories has granted a total of 266,548 euros granted for projects that contribute to litter retrieval before and in the coastal environment.

Germany

Collection of scattered waste on beach

- The “Reduction of litter already present in the marine environment” is part of the German Programme of Measures under the MSFD (Measure UZ5-07)

Achievements

- Positive improvement
- Numerical data - Data is available from regular official beach litter monitoring and partly from the NGOs and public authorities carrying out clean ups on beaches and in other public spaces

Removal of plastic litter from the ocean

- The “Reduction of litter already present in the marine environment” is part of the German Programme of Measures under the MSFD (Measure UZ5-07)
- There are various initiatives for installing technique in order to remove plastics from the ocean. The Fishing for Litter initiative is widely implemented in German harbors and some others also passed the pilot phase, e.g. the seabins, the Seekuh or removal campains by divers of derelict fishing gear.

Achievements

- Not any particular trend
- Numerical data – FFL data is regularly reported to OSPAR

Indonesia

Collection of scattered waste on beach

- Beach clean up (BCU)

  As part of behavior changes governed under NPA of MPL, BCU is an annual activity involving mass people to work hand in hand in cleaning beach area.

Achievements

Positive improvement

Italy

Collection of scattered waste on beach

- Clean up initiatives by NGOs Legambiente, Marevivo and WWF

  Initiatives with citizens to remove marine litter from the beaches

Removal of plastic litter from the ocean

- Initiative of the Ministry of the Ecological Transition to remove marine litter

  The Castalia ships, specialized in the prevention and recovery of hydrocarbon pollution, are supporting the Ministry of the Ecological Transition to collect and trace the presence, quantity and composition of floating marine litter and in particular plastic waste, both in protected marine areas and in areas in front of river mouths.

  For this activity, the Ministry is also supported by Corepla, the National Consortium for the collection, recycling and recovery of plastic packaging, for an experimental project for the recycling of plastic material recovered from the sea fleet.

- Transposition of DIRECTIVE 2019/883/EC in Italian DLgs 197/2021.on port reception facilities for the delivery of waste from ships,

  This Directive aims to protect the marine environment against the negative effects from discharges of waste from ships, including fishing for litter, using ports located in the Union, while ensuring the smooth operation of maritime traffic, by improving the avai lability and use of adequate port reception facilities and the delivery of waste to those facilities.

- Law. 60/2022. SALVAMARE. Provision for the recovery of litter at sea and in inland waters and for the promotion of the circular economy.

  The law allows fishermen and various associations in the sector to collect and bring to shore waste in the sea, lakes, rivers and lagoons and to deliver it to special spaces set up in Italian ports.

Achievements

- Not any particular trend - New legal frameworks is not possible to see a trend yet.
- Not any particular trend - First data from December 2020 to February 2022 of the action 1. Focused on marine plastic litter collected: 6.400 kg Trend shows the highest presence of plastic wastes in the areas in front of the river months.

Japan

Collection of scattered waste on beach

- Collection of scattered waste on land
  - Nationwide clean-up events during "UMIGOMI Zero Week" ("umigomi" means marine litter in Japanese). Approximately 430,000 people participated in the event in 2019. Since 2020, we have been working to prevent COVID-19 by distributing guidelines for cleaning events, and in 2021 there were 150,000 participants.
  - Support for the "Adopt Program" for citizens to carry out cleaning, beautification and management activities with a strong attachment to local public areas;
  - Support for clean-up and litter collection activities in cooperation with river administration authorities, local governments, and residents.

Achievements

- Not any particular trend
- Numerical data

  Collected amount of marine litter from clean-ups (situation is deteriorating compared to FY2017);

	FY2016	FY2017	FY2018	FY2019	FY2020
Total litter	29,931t	45,539t	32,486t	27,310t	27,750
Plastic litter	10,900t	16,600t	11,900t	10,000t	10,000t

  (Reference)

  Comprehensive Investigation on Measures to Tackle Beach Debris (FY 2016)

  http://www.env.go.jp/water/marine_litter/pamph.html

  Total litter: The above data describes the amount collected by local government.

  Marine plastic litter: estimated by multiplying the volume of processed litter by the proportion of plastic litter calculated through sample survey.

Removal of plastic litter from the ocean

- Removal of plastic litter from the ocean
  - Support for local governments to collect and treat coastal marine litter in accordance with "Act on Promoting the Treatment of Marine Debris Affecting the Conservation of Good Coastal Landscapes and Environments to Protect Natural Beauty and Variety" (hereafter "Marine Litter Act");
  - Support for collection of marine litter by fishers in collaboration with local governments/communities. In order to expand this effort, a demonstration project was started from FY2020. In addition, when fishers volunteer to collect marine litter, the national government now covers the cost for processing the litter. 28 prefectures declared their support for fishers. Financial support is provided for fishery cleanup activities carried out by fishers who were forced to suspend their operations due to the effects of COVID-19;
  - Collection of floating marine litter using marine environment maintenance vessels in enclosed sea areas, and by port administration authorities in port areas.

Achievements

Not any particular trend

Mexico

Collection of scattered waste on beach

- Beach cleaning
- https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/reduce-plastic-waste/canada-action.html
- Targeted products: Polyethylene (Plastic) bags with thickness of less than 50 microns.
- Since 1st January 2020, plastic bags with thickness of less than 50 microns and a made up of whole or part polyethylene are no longer manufactured, distributed or sold in Fiji. The only exceptions are those used for packaging products and garbage bags. In addition to this, non- biodegradable plastics are not allowed into Fiji unless it is used for food and beverage preservation, pharmaceutical or medical use and for packaging for products for exporting or re- exporting. Members of the public need to obtain the consent of the Department of Environment for the import of any plastic
- Targeted products: Plastic bags >50 microns
- Honoring business with a pledge on 'Voluntary Commitment towards a "Zero-Waste Ambition".
- Launch of a pilot project in Schools on waste separation, recycling and proper disposal.
- Recognition of individuals and community groups efforts in reducing wastes through recycling initiatives.
- Launch of the "7R" Policy to support the circular economy initiatives during Global Recycling Day.
- 3R Projects at community levels on waste management.

- Commitment by businesses to switch from plastic to paper products
- Raising community awareness and advocacy amongst communities and settlements on recycling and waste management.
- Targeted products: Plastic bags
- There are different initiatives at the local level to discourage disposables use.
- However, most state governments have amended their legislation to ban single-use plastic products or replace them with other materials.
- The initiative is focused in maintain the products, materials, and resources within the economic cycle for as long as possible, to minimize the waste generation.
- The largest actors in the Norwegian grocery, retail and trade sectors have agreed to meet the national obligations in the directive through the establishment of the Norwegian Retailers' Environment Fund (HMF) owned and operated by the relevant private actors. Members of the fund are required to place a fee on all plastic carrier bags they sell. The fund finances both national and international initiatives aimed at reducing and preventing plastic pollution e.g. through clean-up projects and support for technology and innovation.
- The fund's stated goals are threefold:
- Norway has implemented in national law measures in line with the EU Directive on the reduction of the impact of certain plastic products on the environment (SUP-directive) such as bans on placing on the market certain plastic products and requirements on the marking of some single-use plastic products that are frequently inappropriately disposed of.
- Targeted single-use products: plastic carrier bags, cotton bud sticks, cutlery, plates, straws and stirrers, food containers, cups for beverages, beverage containers, sanitary products, wet wipes and tobacco products with filters.
- Also, as part of implementation of this directive, new extended producer responsibility schemes are in progress for certain single use plastic products and for plastic gear in fisheries and aquaculture and will for some products include financing of clean-up, and awareness raising measures.
- Part 2, section 503 – Prohibition on the importation, manufacturing, sale or distribution of Styrofoam cups and plates, disposable plastic cups and plates, and plastic shopping bags.
- Part 2, section 504 – Any person, who violates Section 3 of the Act, shall be guilty of an offense and upon conviction liable for up to six (6) months imprisonment or ten thousand five hundred dollars ($10,500) fine, or both.
- Targeted products: Styrofoam cups and plates, plastic cups and plates and plastic shopping bags
- As this is the first reporting cycle, companies obligated under the MPR scheme were given a grace period to make their first submission by Q2 2022.
- Targeted products: Shopping Bags
- Cabinet paper was submitted for the approval
- With the new intervention of preventing use of small water bottles We have used this mechanism in selected fishing harbour. Significantly reduce amount of plastic water bottle litter in fishery habrour basin
- Suggested to reduce the quantity of plastics used in products
- Certain products are re- designed to changed to facilitate recycling
- Not any particular trend - More time needed to observe an impact. Some activities are not yet started.
- Prohibit to produce, import and sell of plastic microbeads contained-product in Thailand
- With the "Charging of Plastic Bag" application, there was a 65% decrease in the use of plastic bags in three years of time and with this reduction rate, the formation of 550,000 tons of plastic waste originating from plastic bags was prevented. With this reduction, the import of plastic raw materials necessary for the production of plastic bags in Türkiye has been prevented and approximately 3.8 billion Turkish Liras have been saved, as well as 22.746 tons of greenhouse gas emissions have been prevented. In addition, the level of knowledge and awareness on the subject has been created in our citizens, a serious change in behavior has taken place, and the use of reusable carrying equipment (cloth bags, nets, etc.) has become widespread in the society. Within the scope of the application started in 2019, plastic bags are sold at 0,25 Turkish Liras per piece, regardless of their size and content, including taxes, and this amount continues to be applied as 0,25 Turkish Liras without any change in 2020, 2021 and 2022.
- Targeted products: single-use items including plastic bags.
- Preparing and enforcing a federal system (legislation, guides, and awareness programs) to reduce the circulation of single use items, including plastic, paper and other items, through mechanisms of banning the use, promoting alternatives and setting fees.
- The program is yet to be implemented on the national level, however two emirates started the implementation in mid of 2022.
- Preparing a federal system (standard specification and federal legislation) that determines the percentage of recycled materials from plastic waste in the manufacture of plastic products and identifies a list of targeted private companies, focusing on the largest producers, and ensuring that a percentage of recycled materials from plastic waste is contained in their plastic products.
- The program is yet to be implemented on the national level

  https://www.reuseportal.org/

- Law No. 12,305/2010 established the Brazilian National Solid Waste Policy providing principles, objectives, instruments, and guidelines for the integrated management of solid waste, including hazardous waste. An important aim of the policy is to decrease the total volume of waste produced nationally and increase the sustainability of solid waste management from the local level to national level
- Ministerial Ordinance No. 209/2019 approved the National Plan to Combat Marine Litter and its 2022 Action Plan establishes the implementation of measures for an environmentally adequate destination of solid waste as one of its actions.
- Decree No. 10,936/2022 brought important provisions such as the creation of the National Reverse Logistics Program, an instrument to coordinate and integrate reverse logistics systems by means of the National Information System on Solid Waste Management – SINIR, and the National Plan on Solid Waste. The decree also establishes the Waste Transport Manifest, a self-declaratory document valid throughout the Brazilian territory that must be submitted by the solid waste operators to provide information about the amount of waste transported, stored, treated and disposed in an environmentally sound manner. As an example, the reverse logistics system of electronic products recorded significant progress in 2021 and 2022, with the installation of 3,417 proper disposal points, benefiting 1,224 municipalities; reverse logistics centers were also installed in all capitals of the 27 Brazilian states, covering all regions of the country.
- Decree No. 11,043/2022 approved the Brazilian National Plan on Solid Waste Plan that outlines a path to achieve the objectives set out in the National Solid Waste Policy, introduced by the abovementioned Law No.12,305, of 2010. The Plan sets guidelines and strategies for the environmentally sound management of solid waste and for the closure of dumpsites in Brazil, as well as the increase in the waste recovery which is expected to be of about 50% in 20 years.
- Decree No. 11,044/2022 established the Recycling Credit Certificate Program (“Recycle+”), which issued credit to public or private entities in connection with solid waste reverse logistics systems. “Recycle+” aims to increase the adoption of measures to encourage the non-generation, reuse, and recycling of materials (products and packaging waste) and will serve to demonstrate compliance with reverse logistics obligations.
- National Environmental Council (Conama) Resolution No. 454, November 1, 2012, which establishes general guidelines and referential procedures for the management of the material to be dredged in waters under national jurisdiction and its final disposition into fresh and marine waters, applying for purposes of implementation, deepening, maintenance or expansion of channels waterways, the waterway infrastructure of ports, terminals and other port facilities, public and private, civil and military, as well as dredging for other purposes.
- 704 dumpsites closed.
- 47 municipalities have received equipment, machinery, and training to improve sound waste management (since 2019).
- Maritime compliance checks and other administrative procedures for transit and permanence of Brazilian and foreign flagged vessels in waters under national jurisdiction, aiming, *inter alia*, to prevent pollution in the marine environment. It also permits arrest, when necessary
- Environmental and socioeconomic impact assessments, on-site inspections, and monetary fines
- Brazil is developing legal, policy and enforcement measures, which will favor prevention and reduction of waste into the sea from ships and fishing vessels, in addition to the removal of waste and its regular destination. It is also being studied mechanisms to facilitate the collection or removal of plastic fishing gear and their appropriate reception by land facilities, as well as its introduction into the plastic value chain through reuse and recycling.
- All commercial fisheries in Canada now have an inclusion of a garbage provision in all conditions of licence whereby the dumping of garbage from fishing vessels is now a chargeable offence.
- Environmentally sound waste management is a shared responsibility in Canada. A range of policies, programs and regulatory initiatives at all levels of government drive improvements in the production, use, disposal and recovery of materials. The federal government has responsibilities for the transboundary movement of hazardous waste and hazardous recyclable materials, identifying best practices to reduce possible toxic pollution from waste, and developing guidance or other supporting measures. The Government of Canada also invests in waste and wastewater infrastructure. Provincial, territorial and municipal governments have implemented regulatory (e.g. product or landfill bans, incentives, extended producer responsibility programs, litter by-laws) and non-regulatory measures (e.g. educational campaigns, recycling and deposit programs) that target some plastic products and other wastes. These efforts play an important role in collecting plastics from households and other sources that help to reduce marine litter.
- Internationally, Canada participates in key international fora, such as the G7, G20, Basel Convention Partnership on Plastic Waste, the International Resource Panel, and the Organisation for Economic Co-operation and Development (OECD), to strengthen resource efficiency and waste management practices globally. Canada invested CA $100 million to support solutions for environmentally sound waste management and plastic pollution mitigation and remediation in developing countries.
- The recycling and transportation of plastic waste are strengthened. In combination with the classification of domestic waste, the integration of urban renewable resources recovery sites and domestic waste classification sites are promoted, domestic waste sorting and collection facilities and equipment are reasonably arranged in large communities, office buildings, shopping malls, hospitals, schools, venues and other places, and

the collection and transfer efficiency of plastic waste, as well as the standardization level of plastic waste recycling are improved. The standardized collection of plastic waste in the fields of passenger transportation such as highways, railways, water transportation, and civil aviation are further strengthened, and effective connection between the collection of transportation vehicles, the reception of depots, and the urban public transfer and disposal system are promoted. E-commerce platforms (including takeout platforms), express delivery enterprises are encouraged to carry out multi-party cooperation with environmental sanitation units, recycling enterprises, etc., and the standardized recycling of plastic waste such as express packaging and takeout lunch boxes are enhanced. Supply and marketing cooperatives are supported to vigorously carry out standardized recycling of plastic waste.

- The collection, transportation and disposal system of rural plastic waste are established and improved. We improve the classified collection, transfer and disposal system of rural domestic waste, build a long-term mechanism for stable operation, strengthen daily supervision, and continuously improve the level of operation management. According to the local conditions, we coordinate the construction and services of county, township, and village-level facilities, and choose reasonable collection, transfer and disposal modes. We deepen the implementation of agricultural film recycling actions, continue to build agricultural film recycling demonstration counties, promote the application of standard plastic film, and promote mechanized picking, professional recycling and resource utilization. We l carry out pesticide packaging recycling activities. Large farmers, agricultural production service organizations, renewable resources recycling enterprises and other relevant responsible bodies are supported and guided to actively carry out the recycling of waste agricultural and fishery materials such as irrigation equipment, fishing net and fishing gear, seedling tray, etc.
- The recycling of plastic waste are increased. We support the construction of plastic waste recycling projects, release the list of waste plastics comprehensive utilization standardized enterprises, guide relevant projects to gather in parks such as resource recycling bases, industrial resource comprehensive utilization bases, etc., and promote the large-scale, standardized and clean development of plastic waste recycling industry. We strengthen the environmental supervision of plastic waste recycling enterprises, increase the rectification of small scattered enterprises and illegal activities, and prevent secondary pollution. We improve the relevant standards for recycled plastics, accelerate the promotion and application of advanced and applicable technical equipment for the recycling of waste plastics, and encourage the utilization of plastic wastes at the same level and with high added value.
- The level of harmless disposal of plastic waste are improved. We promote the construction of domestic waste incineration facilities in an all-round way, and support all localities to make up for the shortcomings of domestic waste incineration capacity as soon as possible. In principle, cities at prefecture level and above and counties with incineration treatment capacity or construction conditions will not plan or build new primary waste landfill facilities. We support regions with sparse population, small amount of garbage and lack of large-scale waste incineration facilities to build incineration treatment facilities through cross regional construction and sharing, or carry out pilot projects of decentralized and miniaturized incineration treatment facilities after technical evaluation and demonstration. The direct landfill volume of plastic waste are significantly reduced. We strengthen the comprehensive treatment of existing landfill sites, improve the operation and management level, and standardize daily work. Dumping and stacking of domestic waste at will be prohibited, and leakage of plastic waste from historical landfills into the environment will be prevented.
- All commercial and industrial facilities are required to have a Waste Disposal Permit or Waste Recycling Permits to minimize and manage wastes.
- Prohibition Notices and Non Compliance Notices are issued to facilities causing a threat or risk to the environment (intentional/unintentional discharge and disposal of waste to the environment) or operating facilities without relevant permits.
- The sectored ports in the Marine Ministry have established specific rules in which the dumping of waste and substances into the sea is prohibited.
- In general, the Environmental Code prohibits either the dischargement or the dumping of waste in marine waters.
- This is an umbrella Policy covering all types of Waste categories. Some have developed national action plans for management of certain types of waste categories.
- Provision of waste reception facility at Commercial harbors and introduce regulation
- Improve the facilities at fishery harbour to manage fishing vessel generated waste and introduce waste management plan requirement.
- Set up waste collection indictor such as 5% reduction on solid waste enter to waste disposal plants (compare to amount in 2016)
- The legislations seeks to regulate the waste management process and standardize the mechanisms and methods of proper waste disposal in line with best practices with the aim of protecting the environment and reducing risks to human health.
- The above legislations specified the responsibility of the waste producers and suppliers to the principle of extended producer responsibility and promoted the principle of waste sorting in society by standardizing the colors of containers at the UAE level.
- They also set standards for the operation of waste treatment facilities and landfills.
- Establishing a mechanism to implement the principle of extended responsibility by which the supplier / producer is responsible for creating the added value from reuse and recycling program, and bearing legal, regulatory and financial responsibility to reduce environmental impacts during the full life cycle of the products. The focus will be on priority waste such as electronic waste, battery waste and packaging waste.

- The Ministry of the Environment has been supporting several cleanups initiatives across the coastal area on beaches, mangroves, rivers, and other water resources.
- Source: Ministry of the Environment. Available at: https://app.powerbi.com/view?r=eyJrIjoiYTQ5ZDA5NGItNGQ1OS00N2Y5LTgwMGQtOTdjYzBiNDYxOTMzIiwidCI6IjM5NTdhMzY3LTZkMzgtNGMxZi1hNGJhLTMzZThmM2M1NTBlNyJ9
- Four underwater marine environment cleanup actions were carried out, according to the Cleanups Results Dashboard (see item 5.1 below). The actions were held three Brazilian states (Alagoas, Rio de Janeiro and São Paulo). In total, 274 kilograms were removed from the ocean, with plastic (43.5%) and fishing gear (38.9%) representing the majority of the 216 items collected.
- Launched during the United Nations Ocean Conference in Lisbon, Portugal, this app allows citizens to engage against ocean pollution. Using the app, citizens can plan, manage and disclosure cleanups on beaches, mangroves, rivers, and lakes. It also shows actions sites and enables volunteers to engage. It is integrated to the Cleanups Results Dashboard (see item 5.1 below) and permits to send cleanups results data, as weight and quantity of items collected.
- This app integrates the Ministry of the Environment SuperApp (SuperApp MMA), which is available both on Google Play and Apple Store.
- Through the Canada-wide Strategy on Zero Plastic Waste and Action Plan, federal, provincial and territorial governments have committed to support prevention, capture and clean-ups efforts, as well as research and development for effective technologies to reduce plastic pollution.
- Through the Zero Plastic Waste Initiative, the Government of Canada invested over CA $5 million (2018-2022) to raise awareness and educate consumers and youth; develop and advance citizen science; mitigate plastic pollution leakage points; and develop, test and implement solutions to prevent, assess and remove plastic pollution.
- As of May 2022, projects funded through the Ghost Gear Fund have retrieved 1,296 tonnes of abandoned, lost or otherwise discarded fishing gear (excluding ropes and buoys); removed over 153km of rope, successfully returned 381 units of gear back to its owners, engaged over 700 partners and created about 300 jobs.
- Monitoring and investigation of marine plastic waste and microplastics are carried out. We implement special cleaning of plastic waste in bays, estuaries, beaches and other areas, and promote coastal cities and counties to establish a long-term mechanism for marine plastic waste cleaning, so as to maintain free of obvious plastic waste in key coastal areas. We increase waste collection facilities in activity places such as beaches, and improve the frequency of garbage removal and transportation.
- Plastic waste management in both river and sea is enhanced, special cleaning of plastic waste in bays, estuaries, beaches and other areas is performed, and coastal cities and counties are encouraged to establish a long-term mechanism for marine plastic waste cleaning, so as to maintain free of obvious plastic waste in key coastal areas.
- Relevant coastal areas are organized to carry out a one-year plastic waste removal special action in 11 key bays (bay areas).
- A lot of awareness and advocacy on proper waste management is created amongst Fijians through media.
- Fiji as a nation surrounded by oceans is recipient of many MPL that are transboundary in nature. These MPL are washed on-shore due to the tidal movements and are collected during clean-up campaigns.

  See also

  https://www.muell-im-meer.de/ergebnisse/hinweise-zur-durchfuehrung-von-kuestennahen-umweltgerechten-muellsammelaktionen-best
- The Marine Ministry in coordination with local governments and other federal institutions implement some beach cleaning activities.
- There are different initiatives for cleaning beaches driven by government authorities, academia, and NGOs.
- In addition, a lot of actions to clean beaches of marine litter are carried out by NGOs, hotels, private companies and some municipalities.
- A national centre against marine litter (Marfo) was established 1 January 2022 as an administrative body under the Norwegian Ministry of Climate and Environment. The centre is located in Lofoten, Norway. A main task for Marfo is to contribute to improve and to spread knowledge on clean-up and on prevention of marine litter from seabased sources. The centre is amongst others also responsible for map-based data platforms (Rydde/Rent hav) where clean up actions, needs, amounts and types of litter removed etc. is registered.
- There is a lot of clean-up activities in Norway. We have a scheme where volunteers can apply for funding to cover costs related to transport and delivery of collected waste.
- The organization Keep Norway Beautiful has for many years organized clean-up campaigns in Norway. They are at the time being also leading the Clean Europe network, and has together with Keep Sweden Clean a leading role in nordic and arctic clean-up campaigns and projects. More than 100 000 volunteers register participation in clean-up actions, but the real number is considered to be significantly larger. The organization is supported by the Government.
- The Norwegian Retailers' Environment Fund (HMF) is a large, private contributor to clean-up in Norway. In the period 2021-2023 they run a program called Clean Norway – "Rydd Norge", with the goal of cleaning 40% of outer coastline and selected waterways in Norway. The program is run region by region. They are now preparing similar clean-up programs for the coastal sea bottom and for land areas.

- In addition they provide funding after application to selected clean-up projects including on methods and technology.

Myanmar

Collection of scattered waste on beach

- Beach Clean up activities by local government

  Local government makes cleanup activities on Myanmar beaches such as Napali, Chaungtha and Ngwe Saung beach to inspire local communities on how young people can take action to aware about single-use plastics and how they can reduce, reuse and recycle.

Achievement

Positive improvement

Netherlands

Collection of scattered waste on beach

- Municipalities in NL regularly clean the beaches, especially after busy beach days.

  In addition (as mentioned above), a Clean Beaches program focuses on knowledge exchange, support for collaboration projects and improvement of local collaboration between municipalities and entrepreneurs. A dedicated set of measures must lead to the structural maintenance of clean beaches in the Netherlands. This includes additional monitoring, custom advice to coastal communities, municipalities and beach pavilions, and innovative beach cleaning pilots.

  Doe mee met de jaarlijkse Boskalis Beach Cleanup Tour van Stichting De Noordzee - Stichting De Noordzee URL: https://www.noordzee.nl/doe-mee/beach-cleanup-tour/

Achievement

- Positive improvement
- As we do not have all figures at hand we have to be cautious but there is a slight decrease over past 10 years (2010-2020)
- Numerical data
  - There is 27% less litter on Dutch beaches compared to ten years ago (2010).
  - In the period 2011-2020 the trend is decreasing towards an average of 282 of pieces of debris per hundred square meter beach in NL.

Others

- Preventing riverine litter from entering the ocean. As part of the NL micro plastic programme we do behavioural change pilots focused on polluters along rivers (recreational users, yachts, sport fishermen, construction works). Next to this we also run two pilots with waste catchment systems in the rivers (Great Bubble Barrier and the Interceptor).

Norway

Collection of scattered waste on beach

- Facilitation of clean-up
- Funding of clean-up actions
- Support of the NGO Keep Norway Beautiful

Achievements

- Clean-up measures and amount of waste removed is increasing. Concerning amount of waste/litter on beaches, there is not enough data to estimate trends only over a two year period.
- Numerical data - Number registrated volunteers in clean-up 142 000 in 2018, decrease to 42 000 in 2020, though to be much due to the Covid pandemic. Those volunteers removed a rough estimate of 2.8 million metric tons in 2018, and 1.4 million metric tons in 2020. More numbers and information available including at Statistikk - Rydde (https://ryddenorge.no/statistikk)

Removal of plastic litter from the ocean

- Annual retrieval surveys of abandoned, lost, or otherwise discarded fishing gear run by the Fisheries Authorities. Fishing for litter.

  Since the 1980s, the Norwegian Directorate of Fisheries has organized annual clean-up surveys for lost or abandoned fishing gear. The fisherman are obligated to report lost gear, and the authorities can target retrieval accordingly.

  In addition, a “Fishing for Litter” scheme is run in ten harbours in Norway. The scheme is based on that the fishers involved in the scheme, deliver waste they get on board during fishing to the participating harbour for free and that the waste is registered and reused or recycled where possible. The environmental authorities has been paying for the arrangement, but many actors including fishers participate by own capacity. Fishing for litter is a scheme run in several European countries.

  A new "indirect fee" system is planned for implementation during 2022. This fee will apply to all ships calling at a port and will also cover the costs of passively fished waste collected by fishing vessels.

Achievements

Numerical data - Lost fishing gear collected by the Directorate of fisheries in 2020 was about 100 metric tonnes

Peru

Collection of scattered waste on beach

- Campaign "Save Beaches".

  The objective of this campaign was to promote among citizens the proper management of waste in coastal marine areas in order to avoid contamination of beaches with single-use plastic waste such as disposable containers or containers. Environmental education sessions were held with the support of environmental promoters from MINAM, who provided messages using resources such as posters, games and flipcharts.

Achievement

Positive improvement

Republic of Korea

Collection of scattered waste on beach

- International Coastal clean up day

  On third friday of september every year MOF holds International Coastal Clean up day ceremony where multi-stakeholders participate in clean-up activity at a beach.

- Coastal clean up day

  On third Friday of every month MOF and Korea marine Envrionment Management Corporation (KOEM) conduct nation-wide coastal clean-up activity at 12 different regions.

- Marine environment keepers

  MOF organizes a group of local residents who live nearby the sea and assign them a mission to oversee the coast. With financial support from MOF, Marine envrionment keepers carry out clean-up activity to remove marine plastic at a beach

Achievements

Positive improvement

Removal of plastic litter from the ocean

- National marine litter removal project

  MOF has been implementing a national scale removal project targeting the seaside, national ports and fishing ports and major fishing areas of Korea and now expand the targeting area even farther to cover blind spots such as remote islands.

  A part of a project involves operation of clean-up vessels which remove marine litter at all national ports and fishing ports on a regular basis.

  MOF also regularly conducts sunken litter distribution monitoring to selectively choose the area with high pollution level of sunken litter and implement sunken litter removal project accordingly.

Achievements

Positive improvement

Republic of the Marshall Islands

Collection of scattered waste on beach

Achievements

RMI EPA is not responsible to collect scattered waste on beach, however, in RMI EPA's regulation it states the following:

Part IV – Solid Waste Management Responsibility:

Public activity – A person sponsoring any public activity, including charitable, fundraising, recreational, civic, sporting or entertainment events, is responsible for the collection, storage, transportation and disposal of all solid waste generated as a result of the event. Solid waste shall be collected, removed, and disposed of in an approved solid waste disposal facility.

Littering - No person may deposit solid waste in, on or along a road right-of-way, street, trail, turnaround, drainage structure, water of the Republic of the Marshall Islands, public recreation facility or any other public or private property, unless

Such property is an authorized solid waste disposal facility; or the solid waste is deposited in a public litter receptacle.

Samoa

Collection of scattered waste on beach

- Coastal Clean ups

  MNRE and other partners together with communities have conducted coastal and mangrove clean ups in the last two years.

Achievements

Positive improvement - The Ministry works closely with its partners and communities in conducting coastal clean ups including community mangrove clean ups. Local NGOs have been very proactive in initiating community based clean ups.

Removal of plastic litter from the ocean

Achievements

Not any particular trend - We have yet to conduct a nation-wide ocean clean up due to lack of funds and other required resources.

However, MNRE through its Water Resources Division piloted the installation of trash booms with the support of SRPEP for 3 years. The project was successful in preventing rubbish including plastic from entering the sea. Data was collected and as a result the Ministry established its River Ecosystem Health Monitoring (REHM) Program targeting problematic urban river systems. This program was effective in monitoring illegal dumping of rubbish into the rivers and along river banks. Since 2014 the Ministry has undertaken fortnightly site visits targeting families residing along the riverbanks. At present, traditional monitoring structures are being utilized to monitor and report to the ministry through village bylaws. Given the practical success of the trash booms, the Ministry has procured biolog-filters with the support of JICA to be installed at Fagalii village.

In addition, the Ministry of Agriculture (MAF) through its Fisheries Division is responsible for monitoring all fishing vessels including monitoring/recording of waste such as plastics used by fishermen and fishing vessels are disposed of appropriately upon arrival. This is one good example of managing plastic waste produced as a result of commercial fishing operations.

Saudi Arabia

Collection of scattered waste on beach

- National action plan for sustainable management of Marine Litter in the Red Sea coast of Kingdom of Saudi Arabia

  Action E1 of the "National action plan for sustainable management of Marine Litter in the Red Sea coast of Kingdom of Saudi Arabia" calls for the development of a national strategy to encourage coastal landowners or managers to incorporate into their workplans the need to regularly collect and remove litter from their areas of operations. In preparation stage

Achievements

No particular change observed.

Removal of plastic litter from the ocean

National action plan for sustainable management of Marine Litter in the Red Sea coast of Kingdom of Saudi Arabia

Singapore

Collection of scattered waste on beach

- Beach clean-ups.

  Recreational beaches under Singapore's National Environment Agency's purview are cleaned throughout the year with frequencies ranging from four times a week to once in two weeks depending on the public usage and accessibility of the beach. The cleaning frequency is increased to twice a day for selected beaches during monsoon periods as more marine litter is washed ashore.

  Singapore's Public Hygiene Council (PHC) also coordinates and facilitates public clean-up activities at the recreational beaches. Clean-ups are also regularly conducted by non-profit or interest groups such as, but not limited to, International Coastal Cleanup Singapore (ICCS), Our Singapore Reefs, Little Green Men Singapore, Green Nudge, Seastainable, SG Beach Warriors, Nature Society (Singapore), Restore Ubin Mangroves and Seven Clean Seas.

  PHC also has dedicated "CleanPods", which are community-based resources equipped with metal tongs for litter picking, buckets for litter as well as garden carts for transportation of tools and disposal of trash at selected beach locations. Using the CleanPod shared resources allow organisations, schools and communities to reinforce the value of ownership for Corporate Social Responsibility (CSR) and educational opportunities. It also helped to reduce wastage of litter picking tools.

Achievements

No particular change - Due to the limited number of data points for amount of flotsam, we are unable to confidently deduce a trend. More data points are required before we can see a trend. Further monitoring is in progress.

Removal of plastic litter from the ocean

- Dive clean-ups

  Dive clean-ups are conducted by groups such as Our Singapore Reefs, a community interest group that promotes awareness and appreciation of Singapore's marine biodiversity and the impacts of marine debris through dive clean-ups and educational outreach activities.

Achievements

Positive improvement

Spain

Collection of scattered waste on beach

- Circular Sea Initiative
- Financing of clean-up activities (rivers, beaches, floating litter and shallow seabeds) and encourage participation in organised clean-up campaigns (linked to a harmonised citizen science data collection).

Removal of plastic litter from the ocean

- Implementation of a fishing for litter national plan. The measure will include preparatory actions such as a technical document to ensure consistency of methodologies and data collection, a national database, and demonstration pilot actions as part of LIFE INTEMARES European project. Funds are available in the framework of European Maritime and Fisheries Fund Spanish Operative Programme.
- Protocol for inventory, classification, assessment and controlled removal of "ghost nets", as part of LIFE INTEMARES European project.

Sri Lanka

Collection of scattered waste on beach

- Carry out International coastal cleanup day programme in third week of September and carry out beach cleaning in more than 100 sites
- Establish beach caretakers programme to clean selected beach areas in daily basis more than 120 km were cleaned
- Carry out fishing harbour cleaning program time to time
- Beach caretakers clean the beach twice daily

Achievements

Positive improvement - Last 5 years period successfully conducted ICC programme with participation of more than 100000 people each year.

120 km of beach stretch cleaned daily basis

Beach caretakers are sponsored by private sector etc.

Removal of plastic litter from the ocean

Underwater cleaning programme at selected sensitive ecosystem area such coral reef

Achievements

Positive improvement - Large amount of underwater litter have been collected

Thailand

Collection of scattered waste on beach

- Regularly conduct the cleanup events with multistakeholder participation; in marine and coastal ecosystem
- International Ocean Cleanup Day

  Marine resources management center under Department of Marine and Coastal Resources promotes marine and coastal ecosystem clean-up events with local communities, diving-agency, students and private companies

Achievements

Positive improvement

Removal of plastic litter from the ocean

- Regularly collect underwater litters, particularly from fishery activities.

Achievements

Positive improvement

Türkiye

Collection of scattered waste on beach

- Beach clean-up studies

  Clean up activities are executed by institutions and organizations on a regular basis as determined within the provincial action plans. And NGOs make clean-up activities in order to raise public awareness especially in special days such as world ocean day, world environment day etc.

Achievements

Positive improvement

Removal of plastic litter from the ocean

- Sea clean-up activities

  Clean up activities are executed by institutions and organizations on a regular basis as determined within the provincial action plans. And NGOs make clean-up activities in order to raise public awareness especially in special days such as world ocean day, world environment day etc. These studies include cleaning of surface and bottom of the sea.

Achievements

Positive improvemen.

UK

To tackle marine litter, the UK is addressing the issue domestically and internationally, taking a whole-life cycle approach that will prevent and divert material from becoming a source of litter in the first place.

Collection of scattered waste on beach

- The Great British Beach Clean (Marine Conservation Society)

  The Great British Beach Clean is a week-long citizen science event, where hundreds of beach cleans take place up and down the UK. Litter data collected drives our conservation work and also feeds into the International Coastal Clean-up (ICC).

Achievements

- Positive improvement - The UK Government funds the Marine Conservation Society to record litter from sections of our coast which helps us monitor the levels and trends of plastic pollution across several years.

  This data is used in combination with other monitoring data to inform our decisions about how to tackle marine litter.

  We welcome these efforts which provide valuable citizen science data and, encourage more people to become stewards of the marine environment.

Removal of plastic litter from the ocean

- KIMO Fishing for Litter

  The UK supports Fishing for Litter, and the development of similar local schemes. This is a voluntary, unpaid litter bycatch removal scheme by commercial fishermen, run by KIMO, which provides fishing boats with bags to dispose of marine-sourced litter collected during normal fishing operations and arranges for waste disposal.

Achievements

To tackle marine litter, the UK is addressing the issue domestically and internationally, taking a whole-life cycle approach that will prevent and divert material from becoming a source of litter in the first place.

US

Collection of scattered waste on beach

Removal of plastic litter from the ocean

- NOAA Marine Debris Program Removal Grants

  NOAA's Marine Debris Program provides annual funding to partners in the U.S. to support locally driven, community-based marine debris removal projects. These projects benefit coastal habitat, waterways, and wildlife including migratory fish. Since 2006, NOAA has supported over 100 marine debris removal projects and removed more than 30,000 metric tons of marine debris from our coasts and ocean.

Achievements

Not any particular trend

EU

Collection of scattered waste on beach

- World Clean-up Day 2018

  On the occasion of World Clean-up Day in September 2018, some 50 EU delegations and representations joined NGOs, embassies, schools and volunteer networks to organise beach clean activities across the world. A year later, over 80 countries took part in the #EUBeachCleanup campaign. Such activities took also place in 2020 and 2021.

Removal of plastic litter from the ocean

- Port Reception Facilities Directive

  The Port Reception Facilities Directive provides for adequate port facilities. enabling the reception of marine litter passively fished at sea by fishers with port fees independent of the amount brought ashore

- European Maritime, Fisheries and Aquaculture Fund

  The European Maritime and Fisheries Fund and the new European Maritime, Fisheries and Aquaculture Fund provide financial support to fishing for litter activities and investments in ports to provide adequate reception facilities for lost fishing gear and marine litter.

International Organisations and NGOs

ADB

Collection of scattered waste from the ocean

- The project (TA-0044) will support the government of Sri Lanka by engaging an international firm to develop and implement a training program for the National Aquatic Resources Research and Development Agency (NARA). NARA is the government institute in Sri Lanka responsible for carrying out research in monitoring and assessing the environmental damage caused by MV X-Press Pearl, the cargo ship that sank off the western coast of Sri Lanka in May 2021. The burning of the containers resulted in the discharge of considerable quantities of hazardous chemicals including nitric acid, methanol, perfumery products and High-Density Polyethylene (HDPE) plastic pellets into the sea. The firm will also provide guidance to NARA on the design and implementation of the monitoring plan for addressing the pollution and environmental damage caused by the MV X-Press Pearl wreck. The main output of the firm is to build the capacity of NARA personnel to independently carry out environmental damage assessments in any future maritime disasters.

ERIA

Collection of scattered waste on beaches

- Information sharing on “Waste Collection from Rivers, Beaches, and Oceans” in the ASEAN+3 context on the RKC-MPD website.

  Related link:

  https://rkcmpd-eria.org/practices/Government-Initiatives/waste-collection

Removal of plastic litter from the ocean

- Information sharing on “Waste Collection from Rivers, Beaches, and Oceans” in the ASEAN+3 context on the RKC-MPD website.

  Related link:

  https://rkcmpd-eria.org/practices/Government-Initiatives/waste-collection

UNDP

Collection of scattered waste on beaches

- UNDP has supported several beach cleanup activities through community level initiatives, country programs and regional partnerships.
- For instance, through UNDP-UNEP partnership, The Integrating Water, Land and Ecosystems Management in Caribbean Small Island Developing States (IWEco Project), an SGP contributed to the collection of 20,535 and 1.5 tons of plastic from beach clean-ups in Trinidad and Tobago and Dominican Republic respectively. SGP has supported over 100 of such clean up initiatives. However, given the limitations of one-off cleanups (i.e., their inability to trigger positive attitudes and behavior change) SGP is now working, through its Plastic Innovative Programme, to replicate the Rwandan model – where regular monthly whole-of-society cleanups are integrated strict regulations to cause behavior changes. This has two direct benefits: cleanup for short term immediate benefits, while changing behaviors in the medium to long term for a cleaner environment in the long run.
- Ocean innovator OneSea is using beach cleanups as an awareness-raising effort, and encouraging public engagement through the creation of a Peace Treaty with the Ocean to be presented to Parliament. They are also reviewing laws and bills on various levels and are working with municipalities on the implementation of existing laws prohibiting the disposal of plastics waste in public areas.

3.4. Promotion of Innovative Solutions

Encouraging plastic alternatives, such as biodegradable plastics, and promoting circular product design, including the use of recycled materials or closed-loop recycling, are solutions that are carried out by 26 countries and 17 countries state positive trend perception of such measures. There are also 22 countries supporting public-private partnerships to implement innovative solutions with 12 reporting optimistic perception of the measures.

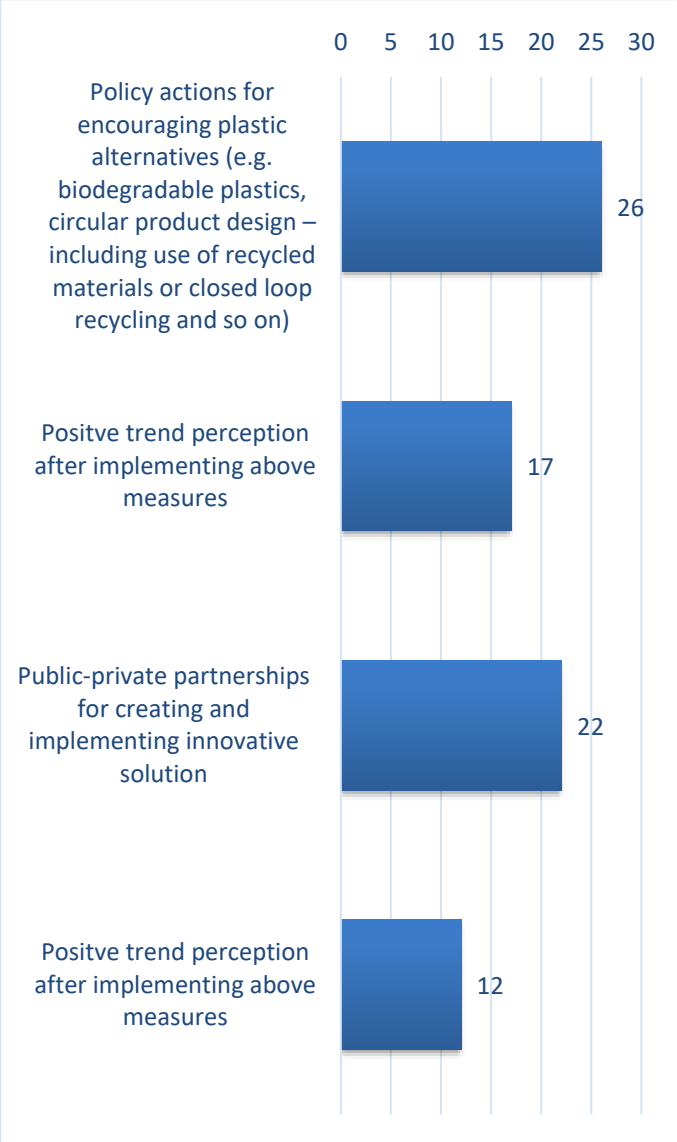

Figure 8: Countries – Promotion of Innovative Solutions*

*Number of countries responded YES among 33 responses

Countries

Australia

Policy actions for encouraging plastic alternatives

- Australian Circular Economy Hub

  The Australian Government has invested AU$1.6 million through the Environment Restoration Fund to help establish an Australian Circular Economy Hub and Marketplace by end of 2021, designed to be a one-stop-shop for circular economy inspiration, education and implementation in Australia.

  We are taking a systemic approach that designs out plastic waste, builds our processing capacity, scales up our manufacturing capability and generates demand for these products.

  The $190 million Recycling Modernisation Fund is supporting innovative investment in new infrastructure to sort, process and remanufacture waste materials covered by the export ban (glass, plastics and tyres).

  In addition to the RMF and other Australian Government programs, state governments have been investing in their own programs to support industry to turbocharge its capacity to process materials addressed by the waste export ban.

  Programs under the $1.5 billion Modern Manufacturing Strategy are supporting manufacturers in the Recycling and Clean Energy National Manufacturing Priority area to build scale and competitiveness, translate good ideas into commercial outcomes, and connect with new domestic and global markets.

Achievements

- Not any particular trend
- Numerical data - APCO is also making progress against the National Packaging Target for 100% of all Australia's packaging to be reusable, recyclable, or compostable by 2025 or earlier. As of 2019-20, 86% of Australia's packaging is reusable, recyclable or compostable.

Brazil

Policy actions for encouraging plastic alternatives

- "Income for waste pickers" project

  The Ministry of the Environment designed a project to prevent plastic waste into the sea and take advantage of such waste, mainly from recycling, innovative solutions and the benefit of local communities in two coastal states (Pernambuco e Alagoas).

  "Income for waste pickers" is a pilot project which seeks to structure a processing center for plastic collected by garbage pickers from 5 municipalities in the Coral Reef Coast region. The project will contribute to generate extra income for associates and cooperatives of garbage pickers, through the acquisition of machinery, training, and elaboration of a business Plan.

The project is sponsored by TerraMar Project (German Government partnership, see item 5.4 below), in partnership with IABS (Brazilian Institute of Development and Sustainability) - a non-profit association certified as a Civil Society Organization of Public Interest, and Portal Sul Municipalities Consortium.

This project will promote the recycling production chain and create a support network for this and other projects, learning exchange, circular economy and, consequently, combat marine litter.

- Project expected results:
  - Reduction of the amount of plastic waste that reaches Atlantic Ocean.
  - Generating extra income to benefit associates and cooperative members.
  - Improve recycling production chain, supporting the expansion of plastic reverse logistics.
  - Awareness about marine litter issues and inadequate waste disposal.
- Numerical data

  About 60 garbage pickers

  5 municipalities

  5 pickers organizations

Canada

Policy actions for encouraging plastic alternatives

- Canada's comprehensive zero plastic waste agenda
- Canadian Plastics Innovation Challenges
- G7 Innovation Challenge to Address Marine Plastic Litter

The Canadian Plastics Innovation Challenges are part of Canada's comprehensive approach to addressing plastic waste and pollution. This program provides funding to small and medium-sized enterprises to incentivize the development of technology to address plastic waste. Through the Canadian Plastic Innovation Challenge, the government is investing nearly $19 million to support Canadian innovators and small and medium-sized businesses to develop solutions for plastics challenges. The Challenges include, among other categories, supporting innovation in reducing plastic waste and microfibers from textiles, finding sustainable alternatives to plastic packaging, developing sustainable fishing and aquaculture gear, and developing innovative solutions to address plastic waste and toxic substances from electronics. Successful applicants receive up to $150,000 to develop a proof of concept and subsequently up to $1 million to develop a prototype if selected.

Canada is also investing in innovation internationally, including $20 million to support the G7 Innovation Challenge to Address Marine Plastic Litter.

Since 2018, the Government of Canada has invested over $19 million in 15 different plastics challenges. The challenges, sponsored by nine different federal departments, have addressed food packaging, construction waste, e-waste, ghost fishing gear, sustainable fishing gear, improved compostability of bioplastics, next generation bio-based foam insulation, textiles, end of life vehicles, the filtration and monitoring of microplastics, and most recently recycling and compostability of personal protective equipment.

Canada is also investing in innovation internationally, including $20 million to support the G7 Innovation Challenge to Address Marine Plastic Litter.

Achievement

- Positive improvement
- Numerical data

  Canadian Plastics Innovation Challenges
  - 15 challenges across sectors, such as automotive, textiles, packaging, fishing gear, fiberglass boats
  - Nearly $19M overall awarded to Canadian innovators and small and medium-sized businesses to address plastics challenge
  - Environment and Climate Change Canada is the sole sponsor of five of these challenges, which leveraged over 4 million in additional funding.

Public-private partnerships for creating and implementing innovative solution

- Canada's comprehensive zero plastic waste agenda
- Canada Plastics Pact

The Government of Canada is working with all levels of government, Indigenous communities, industry, non-profit organizations, researchers and civil society to reduce plastic waste and pollution. This includes engagement with key stakeholders on measures throughout the process.

The Government of Canada is also supporting businesses and organizations to engage key stakeholders in advancing solutions to transition Canada to a circular plastics economy. For instance, through the Zero Plastic Waste Initiative, Canada has supported leading businesses and organizations to move towards a circular plastics economy, including assessing options to reduce agricultural plastic waste, creating an online market place for secondary plastics from the industrial, commercial and institutional sector, and evaluating the recycling value chain and identifying pilot projects for hard to recycle items such as medical PVC.

In January 2021, the industry-led Canada Plastic Pact (CPP) was launched with over 40 founding partners, including Environment and Climate Change Canada. In July 2022, the CPP released its 2020 Baseline Report to set a benchmark for measuring future efforts to achieve a circular economy for plastics.

The Pact is part of the Ellen MacArthur Foundation's Plastics Pact Network and brings together organizations from the national plastic value chain to collaborate and rethink how plastic packaging is designed, used and reused to realize a circular economy for plastic in Canada.

URL:

https://www.canada.ca/en/environment-climate-change/services/environmental-funding/programs/zero-plastic-waste-initiative.html

https://cleanfarms.ca/building-a-canada-wide-zero-plastic-waste-strategy-for-agriculture/

https://councilgreatlakesregion.org/cglr-to-clean-up-great-lakes-plastic-pollution-and-pilot-innovative-materials-marketplace-platform-in-ontario-with-support-from-the-government-of-canada/

https://www.danone.ca/federal-government-and-six-key-players-partner-to-create-a-circular-economy-for-plastics/

https://www.vinylinstituteofcanada.com/medical-pvc-recycling-pilot-program-pvc-123/

Achievements

- Positive improvement
- Numerical data - Zero Plastic Waste Initiative

  Since 2018, 15 industry and non-profit organizations have received over $3.2 million to advance innovative and sector specific solutions that improve the sustainable design and production of plastics, strengthen secondary markets and support Canada's transition to a circular plastics economy.

Others

Canada also recognizes that the COVID-19 pandemic has resulted in the increased use, waste and litter of personal protective equipment (PPE). The government is investing in PPE-specific recycling technologies, improving our understanding of littered PPE through citizen science, and supporting the health care sector to develop hospital protocols that target the sustainable procurement, sterilization and re-use, and recycling of its PPE waste.

Chile

Policy actions for encouraging plastic alternatives

- Harnessing Artificial Intelligence for the control of marine debris

  The Ministry of the Environment is promoting the use of Artificial Intelligence for the detection, control and monitoring of marine debris.

Achievement

Positive improvement

Public-private partnerships for creating and implementing innovative solution

- Chilean Plastics Pact (PCP)

  Led by Fundación Chile and the Ministry of Environment, the PCP was adopted in April 2019, with the purpose of rethinking the future of plastics by bringing together all actors in the value chain such as companies, public sphere and NGOs. The initiative is part of the Plastics Pact Global Network launched in 2018 by the Ellen MacArthur Foundation in the United Kingdom.

China

Policy actions for encouraging plastic alternatives

- Opinions on Further Strengthening Plastic Pollution Control

  Recyclable and foldable packaging products and logistics and distribution equipment will be actively promoted. Companies are encouraged to adopt equity cooperation and joint capital injection to build a cross-platform operation system for recyclable packaging. Enterprises using integrated packaging of goods and logistics, and establishing a recycling system for recyclable logistics distribution equipment are also welcomed.

- Action Plan on Plastic Pollution Control (2021-2025)

  Plastic substitute products are steadily promoted in a scientific way. We fully consider the environmental impact of life-cycle resources such as bamboo and wood products, paper products, and degradable plastic products, and improve the quality and food safety standards of relevant products. We carry out research on the degradation mechanism and impact of different types of degradable plastics, and scientifically evaluate their environmental safety and controllability. We improve the standard system, issue biodegradable plastics standards, standardize the application fields, and clarify the degradation conditions and disposal methods. We step up efforts to make breakthroughs in core technology research, continuously improve product quality and performance, and reduce its application costs. We promote orderly development of biodegradable plastics industry, guide the rational layout of the industry, and prevent blind expansion of production capacity. We accelerate the scientific research and application of biodegradable agricultural film. We strengthen capacity building on detecting degradable plastics, strictly investigate and deal with false labels of degradable plastics, and regulate the order of the industry.

Achievement

Positive improvement

Public-private partnerships for creating and implementing innovative solution

- Opinions on Further Strengthening Plastic Pollution Control

  Plastic products manufacturers should promote green design to improve the safety and recycling of plastic products. They should adopt new green and environment-friendly functional materials, strengthen the research and development of recyclable and degradable alternative materials and products, and develop an implementation plan for the reduction of disposable plastic products. Management of registered merchants in e-commerce, food delivery, and other platform enterprises should be improved to promote green supply chains.

Achievement

Positive improvement

Costa Rica

Policy actions for encouraging plastic alternatives

- Circular Economy Strategy

  The circular economy proposal for the country is being designed.

Achievements

Positive improvement - Currently, an intersectoral commission is designing a proposal for a Circular Economy Strategy for Costa Rica, where the topic of alternative products to traditional plastic, recycling, ecodesign and circular (closed) production processes are included.

Public-private partnerships for creating and implementing innovative solution

- Education and awareness of the private, commercial and productive sector for the reduction of single-use plastic pollution

  Coordination with the productive, industrial and commercial sector to raise awareness about the problem and take measures for the reconversion of the sectors in the reduction of the use of single-use plastic.

Achievements

Positive improvement - Since the implementation of the Recycling Strategy and the Single-Use Plastic Strategy, we have been working with the private, productive and commercial sector, as well as with the plastics industry sector. With all the actors, training and awareness processes were initiated to reconvert production, marketing and the plastic industry. There is a great effort to strengthen and accelerate the implementation of Extended Producer Responsibility.

Others

- In addition, various activities and actions have been developed aimed at the search for the route of substitution of single-use plastics, such as the use of biofibers, ecodesign, circular production processes, among others. These various initiatives are related to:
  - An inventory of biofibers has been carried out in Costa Rica as potential raw materials for the production of single-use products.
  - Study of the socio-economic impact of the National Strategy for the substitution of single-use plastics.
  - Workshop for the development of new businesses from by-products of pineapple cultivation.
  - Inventory of single-use plastics and overall plastics, used in large pelagic fishing activities in Puntarenas (Pacific).
  - Circular economy project with plastics recovery in Puntarenas (Pacific), supporting local entrepreneurship of associations and groups organized under the name of Circular Coasts.
  - Elimination of plastic bags (free and sold) in the Supermarket Chain Walmart, Palí, Maxi Palí and Mas x Menos that covered 250 establishments as of January 2021. Walmart began the campaign #nobagsplease in January 2019.
  - As of December 2021, there is a database of more than 100 alternative products to single-use plastics.
  - By 2021 there are 20 new entrepreneurships that contribute to the replacement of single-use plastic with biodegradable alternatives, renewable and compostable alternatives. There is a database with 35 suppliers of alternative products to single-use plastics and accessory products such as equipment for home composting, all of them marketers and importers.
  - There are 3 municipalities, San Carlos, Tibás and Osa, that have approved the creation of trade incentives for the replacement of single-use plastics. However, only San Carlos and Tibás have put it into practice via patent regulations. San Carlos approved a 2% incentive in the payment of commercial patents, and Tibás did so through a differentiated fee in waste collection.
  - The Plastic Free Zone Volunteer Network is created.
  - During 2022, the update of the National Strategy for the Substitution of Single-Use Plastics (2022-2026) and the National Strategy for the Recovery and Separation of Recoverable Residues (ENRSV) commonly called the Recycling Strategy (2022-2026) have been developed.

Fiji

Policy actions for encouraging plastic alternatives

- National Oceans Policy
- 7R Policy
- Clean Environment Policy

  As a result of the plastic ban, business houses are importing alternatives.

  Women's groups and a number of business houses engaged in producing eco bags and are sold in shopping outlets and markets.

Public-private partnerships for creating and implementing innovative solution

- Zero Waste Ambition by Businesses

  Allowing voluntary commitments towards a Zero Waste Ambition to be taken up by businesses.

- Partnerships with Recycling Companies to create awareness and trainings/workshops

  Working with Recycling companies to provide trainings and awareness to waste recycling heroes.

Achievements

Positive improvement

France

Policy actions for encouraging plastic alternatives

- Introduction of a definition of bulk selling in the national legislation and creation of an obligation for shops with a surface area of more than 400 meters to make reusable containers available to consumers;
- Definition of standard ranges of reusable packaging for the catering sector, as well as for fresh produce and drinks
- Simplify the sorting process for citizens and expand it to all plastics;
- Experiment deposit schemes;
- Expand the scope of action of the ERP packaging schemes to industrial and commercial packaging

Achievement

Not any particular trend

Public-private partnerships for creating and implementing innovative solution

- Identifying new fishing gears that intend to prevent impacts in the marine environment.
- In 2020, the Ministry of ecological transition launched the basis for an Accelerating Strategy "Recyclability, recycling and reincorporation of materials" in order to support innovation in the private sector. The strategy targets plastic as a priority material.
- The ADEME has planned to launch a study in 2021 to characterise the sources of recoverable waste in France and to identify and analyse the most promising chemical recycling methods for treating these sources.

Germany

Public-private partnerships for creating and implementing innovative solution

- Criteria for "Reusable systems to-go for food and beverages (DE-UZ 210)" of the German national ecolabel "Blue Angel".

  A mandatory minimum use of recyclates for certain single-use plastic beverage bottles from 2025The ecolabel's aim for reusable cup systems is to reduce the number of disposable cups and to strengthen environmentally friendly reusable cup systems. The criteria include requirements for the cups themselves as well as for the suppliers.

Achievements

- Positive improvement
  - The effects from the mandatory minimum use of recyclates cannot be assessed
  - Currently biobased and biodegradable plastics don´t have ecological advantages.
  - Several leading brands for reusable systems to-go are certified.

Indonesia

Policy actions for encouraging plastic alternatives

- Promoting reuse and recycle waste activities

  The government of Indonesia together with its line stakeholders conducted series of innovation challenges, to gather ideas/thoughts of alternative single use plastics, and reusing packaging for certain products. One of the challenges so called "Ending Plastic Pollution Innovation Challenge" (EPPIC).

Achievement

Poisitve improvement

Public-private partnerships for creating and implementing innovative solution

- Develop and Operate refused derived fuel (RDF) and Material Recovery (MRF) Facilities

  Promoting RDF and MRF technology to convert waste into products (composting, RDF pellet/brickets/fluff) with a view to mitigate a number of waste transported to the landfill.

Achievements

- Positive improvement
- Numerical data

  RDF Facility: 160 tons/day

  MRF Facility: 100 tons/day

Italy

Policy actions for encouraging plastic alternatives

- Programme of measures according to Article 13 of the MSFD (2021).

  Design and implementation of measures to improve the management of litter generated by fishing and aquaculture activities, including discarded equipment, favoring, where possible, its reuse, recycling and recovery.

  Measure concerning the application of the new Directive 904/2019 regarding the creation of EPR (Extended Producer Responsibility) systems: preparation of a Ministerial Decree for the creation of EPR systems for the products referred to Article 8 of Directive 904/2019 and of Annex PART E section 1, as well as of mussel farming nets, for the correct management of the end of life of fishing and aquaculture equipment.

Achievements

No particular trend - New measure, is not possible to see any particular change yet.

Public-private partnerships for creating and implementing innovative solution

- Rivers anti pollution barriers

  Initiatives for the installation of collection devices positioned in the section of some rivers (Po, Aniene and Tiber) to collect litter. The intercepted litter is collected by COREPLA a private company for plastic recycling.

Achievements

Positive improvement - The initiative started in 2018 in the Po River now is exported also in other two rivers.

Japan

Policy actions for encouraging plastic alternatives

- Acceleration of technological development by utilizing available funds including Green Innovation Fund, based on the "Roadmap for Popularizing Development and Introduction of Marine Biodegradable Bio-based Plastics" such as analysis of biodegradation mechanism, development of new resin, reduction of manufacturing costs, and international standardization;
- Support for the development of marine biodegradable plastic especially for fishing gear;
- Support for replacement of plastic products with paper, marine biodegradable plastics, cellulose materials, etc. through the "Project on building a recycling system for plastics to support decarbonized society". Support was started for actions on microbeads in FY2020, and continued for measures on other plastic materials in FY2021;

Achievement

- Positive improvement
- Numerical data

  Budget scale of technologies development and R&D

	FY2020
National budget	JPY 277 million

  (Reference)

  Meeting materials for expert conference on measures against articles that drift ashore

  http://www.env.go.jp/water/marine_litter/conf.html

Public-private partnerships for creating and implementing innovative solution

- "Clean Ocean Material Alliance (CLOMA)" has developed valuable partnerships among relevant business operators along the plastic supply chain, ensuring the creation of various innovative approaches;
- From FY2020, research began to develop fishing gear that is easy to recycle, such as gear made of a single plastic material and gear made of multiple materials that can be easily disassembled and separated;
- Development of an efficient decomposition method for plastic waste using micro-organisms.
- Financial support for public-private partnerships at the local level to implement pilot projects to reduce marine plastics from 2021.

Achievements

- Positive improvement
- Numerical data

  Budget scale of technologies development and R&D

	FY2020
National budget	JPY 277 million

  (Reference)

  Meeting materials for expert conference on measures against articles that drift ashore

  http://www.env.go.jp/water/marine_litter/conf.html

Others

Proposal for international standards on measuring fiber fragments released from textiles and products.

Mexico

Policy actions for encouraging plastic alternatives

Some local governments have promoted the use of biodegradable materials, particularly compostable ones, but they have faced other problems such as the lack of laboratories to certify the material, as well as the lack of monitoring activities.

Netherlands

Public-private partnerships for creating and implementing innovative solution

- Based on top 10 beach litter items and taking into account existing waste management measures in 2015 three so-called Green Deals were adopted in NL to tackle litter from beach-recreation, shipping and fishing, where actions and obligations for government authorities, entrepreneurs, civil society organisations and private individuals are brought together. For beach-recreation and fishing these Green Deals have been followed up by more regular programs in 2021, as part of the MSFD programme of measures

  See also information in 2.1 on the national and EU plastic pacts

Achievements

Positive improvement - New report on Dutch Green Deals shows that marine litter is decreasing – KIMO (kimointernational.org)

URL: https://www.kimointernational.org/news/new-report-green-deals-marine-litter-is-decreasing/

Norway

Policy actions for encouraging plastic alternatives

- Through the EU (Norway as part of the EEA agreement) a new target is set on incorporating 25% of recycled plastic in PET beverage bottles from 2025, and 30% in all plastic beverage bottles from 2030.
- Initiatives for better product design supported by Innovation Norway.

  Regarding biodegradable plastics. There are ongoing assessments on the suitability of biodegradable plastics. There are issues related to recycling, as it is difficult at household level to sort correctly. In addition, in a cold climate the biodegradable plastics do not degrade at the same level/the process is slow. Other materials (wood, paper etc.) as alternatives to plastics are more commonly introduced. The EU will propose a policy framework for biobased plastics and biodegradable or compostable plastics.

Achievement

Positive improvement

Public-private partnerships for creating and implementing innovative solution

- Considering a Plastic Pact with the industry in order to reduce consumption of certain plastic products, especially single-use.
- Support to research and innovation coupling industry with research institutions.
- The Norwegian Retailers' Environment Fund and the Research Council of Norway (RCN) have a joint project on supporting research on circular solutions for plastics including reuse and recycling.

  The Research Council of Norway (RCN) and Innovation Norway supports projects aimed at coupling industry with research and innovation for a more circular economy. This includes several projects on plastics.

Oman

Policy actions for encouraging plastic alternatives

Recycled bags is one of the alternatives to the consumers because the country already pan the single used plastics

Achievement

Positive improvement

Peru

Policy actions for encouraging plastic alternatives

- Technical Regulation on Biodegradable Plastic Bags (Supreme Decree No. 025-2021-PRODUCE)

  On November 30, 2021, through Supreme Decree No. 025-2021-PRODUCE endorsed by MINAM, the Technical Regulation on Biodegradable Plastic Bags was approved, which establishes the technical and labeling requirements that such plastic goods must meet to be designated as biodegradable. This instrument is part of the implementation of Law 30884, which has established the exemption from the Tax on the consumption of plastic bags for those plastic bags that prove to be effectively biodegradable in accordance with the previously mentioned Technical Regulation.

  Law 30884 has also established the obligation to incorporate 15% recycled material in the composition of PET bottles for beverages for human consumption, cleaning and personal care, which came into force as of December 2021.

- Clean Production Programs between the government of Peru and private companies

  The Clean Production Programs are instruments for the efficient use of materials and solid waste management, they are voluntary promotional instruments that aim to introduce in productive activities a set of actions that go beyond compliance with current legislation, of so that the conditions in which the owner carries out his activities are improved, in order to achieve the prevention or minimization of the generation of solid waste.

- National Competitiveness and Productivity Policy

  The National Competitiveness and Productivity Policy was approve on 2018 (Supreme Decree N° 345-2018-EF). It aims to achieve the well-being of all Peruvians on the basis of sustainable economic growth with a territorial approach through the implementation of cross-cutting measures. In this context, the inclusion of the Circular Economy approach is promoted within Priority Objective N ° 9 called "Promote environmental sustainability in the operation of economic activities".

Achievements

Positive improvement - Approximately 13,000 tons of PET plastic waste were incorporated into production processes for new PET containers for food and beverages.

Public-private partnerships for creating and implementing innovative solution

- Clean production Programs between the government and private companies

  The Clean Production Programs are instruments for the efficient use of materials and solid waste management, they are voluntary promotional instruments that aim to introduce in productive activities a set of actions that go beyond compliance with current legislation, of so that the conditions in which the owner carries out his activities are improved, in order to achieve the prevention or minimization of the generation of solid waste

Achievements

Positive improvement - From 2018 to date, 17 Clean Production Programs have been signed with the companies, but seven of them have goals related to plastics:

- Sistema Coca Cola Perú (Coca Cola and Arca Continental Lindley),
- Unión de Cervecerías Peruanas Backus y Johnston SA,
- Koplast industrial SAC,
- Peruana de Moldeados SAC (Pamolsa),
- Natura Cosméticos SA,
- Cencosud Retail, and
- Embotelladora San Miguel del Sur SA.

Five of these companies have managed to achieve 100% of their goals, and have the recognition given by the Ministry of the Environment.

Republic of Korea

Policy actions for encouraging plastic alternatives

- Biodegradable fishing gears dissemination

  National enterprise where MOF develops and disseminates eco-friendly fishery equipment such as nets and buoys to fishermen.

- National R&D project to invent microplastic removal equipment and develop plastic-to-energy technology (2021-2024)

  MOF is currently pushing forward a R&D project to develop an equipment that can effectively remove microplastic on beaches. Another objective of the project is to invent the technology and facility which will allow people to utilize marine plastic litter to generate energy.

Public-private partnerships for creating and implementing innovative solution

- Adopt-a-beach project

  MOF is working on establishing a system where MOF matches a group of people (NGOs, Corporations etc.) with a beach to facilitate private sector's participation in coastal clean-up activities.

Achievements

Positive improvement

Republic of Marshal Island

Policy actions for encouraging plastic alternatives

- Styrofoam cups and plates, plastic cups and plates, and plastic shopping bags: Part 2, section 503, paragraph 2 – Nothing in this Section shall prevent a person from importing, manufacturing, selling or distributing use recycled paper bags or reusable shopping bags.
- "reusable shopping bag" – shopping bags which are not plastic that can be reused many times, including local baskets; this is an alternative to plastic shopping bags.

Public-private partnerships for creating and implementing innovative solution

Achievements

Positive improvement - Grocery stores as well as other shops have been using boxes, paper bags or local bags as an alternative as well as ordering their own reusable bag to sell to customers for use.

Samoa

Policy actions for encouraging plastic alternatives

- Waste (Plastic Bag) Management Regulations 2018, Consultations and public awareness

  Consultations were conducted in development of the Regulations on banning certain plastic items for government agencies, private sector including business communities and the public.

Achievements

Positive improvement - During consultations, alternatives were identified and now in place to substitute the banned plastic items. This includes the use of recycled materials and local fabrics and plant based materials.

Public-private partnerships for creating and implementing innovative solution

- Pilot projects

  Pilot projects with private sector are about to kick start in reusing, re-purposing of plastics (PET) to create new products.

Achievements

Not any particular trend - Opportunities exist through SPREP executed regional projects such as the PACWASTE PLUS Project, SWAP AFD Project and the recently launched UNDP executed CERO Project.

Singapore

Policy actions for encouraging plastic alternatives

- Zero Waste Masterplan

  Singapore is working towards becoming a Zero Waste Nation and has launched a Zero Waste Masterplan. The Masterplan outlines Singapore's strategies to reuse and recycle resources, turn trash into treasure, as well as produce and consume sustainably. To support our circular economy approach, we are investing in research and development and collaborating with the industry to develop and promote innovative solutions to turn our waste into resources. As part of efforts under the Zero Waste Masterplan, Singapore has introduced Mandatory Packaging Reporting (MPR) in 2021 to close the packaging loop. Under the MPR framework, producers of packaged products, as well as retailers will be required to submit packaging data and 3R plans to the NEA.

- Chemical Recycling of Plastic Waste

  NEA is also studying the feasibility of both mechanical recycling and chemical recycling of plastics. In the latter, waste plastics could be recycled through pyrolysis for use by the petrochemical sector to manufacture chemicals and plastics.

Achievement

- Positive improvement

  Since the launch of the Zero Waste Masterplan in 2019, policies have been further developed.

  In Singapore's context, replacing conventional non-degradable single-use plastics with biodegradable alternatives is not necessarily better for the environment, as all incinerable waste, including biodegradables, are not directly landfilled but disposed of at waste-to-energy plants. A life-cycle assessment study on carrier bags and food packaging commissioned by the National Environment Agency (NEA) also found that each type of packaging material results in different environmental impact such as global warming, high water consumption or land use change. Hence, a more sustainable approach is to reduce the excessive use of all types of disposables and promote the use of reusables where possible.

Public-private partnerships for creating and implementing innovative solution

- Engage domestic stakeholders to reduce the amount of solid waste, generated and disposed of, including plastics.

  Singapore's initiatives to engage domestic stakeholders include:

  - Partnering with the People, Private and Public (3P) sectors on initiatives that reduce the generation of land-based solid waste, including plastic waste. These include convening Citizens' Workgroups on recycling right and reducing the excessive consumption of disposables, where citizens come together to learn and brainstorm innovative and contextually relevant solutions to these issues; and co-delivering these solutions with the 3P sectors where feasible.
  - The Singapore Manufacturing Federation (SMF) has partnered the NEA to introduce an industry-led programme called the Packaging Partnership Programme (PPP) to support companies in their journey towards adopting sustainable packaging waste management practices. The PPP is a joint capability development programme that will support companies in fulfilling their new obligations under the Mandatory Packaging Reporting framework from 1 January 2021 as well as enable the exchange of best practices in sustainable packaging waste management. Prior to the PPP, there was the Singapore Packaging Agreement, a voluntary agreement undertaken by government, industry and non-governmental organisations to reduce packaging waste from 2007 to 2020.
  - National Recycling Programme, in which recycling bins are provided at every HDB block, landed property, opt-in condominium, and various trade premises all over Singapore to serve as convenient means for households to recycle, thereby reducing the amount of plastic waste being sent for disposal.

Achievements

Not any particular trend - Monitoring in progress as PPP is recently implemented

Senegal

Policy actions for encouraging plastic alternatives

- Awareness activities to encourage alternatives to plastic products

  The development and implementation of a communication strategy based on press briefings, media interventions, skits and commercials.

Achievement

Positive improvement - We have noted a real reduction in single-use plastic products (disappearance of plastic cups and bags replaced by paper products)

Spain

Policy actions for encouraging plastic alternatives

- Guide of Circular Economy Best Practices
- Circular Strategy and Plan
- Law 7/2022 on waste and contaminated soils for a circular economy.
- Royal Decree 293/2018 on reducing the consumption of plastic bags

  Identifies examples of good practices carried out in Spain, which can be transferable and scalable to other agents. Also, RD 293/2018 states that all plastic bags given to consumers must be compostable.

Public-private partnerships for creating and implementing innovative solution

- Guide of Circular Economy Best Practices

  Identifies examples of good practices carried out in Spain, which can be transferable and scalable to other agents.

Sri Lanka

Policy actions for encouraging plastic alternatives

- Alternatives for plastics promoted.
- Recycling of plastics promoted.
- Biodegradable plastic & polythene not much promoted due to non adequacy of testing facilities.
- Recycled products are promoted.

Achievements

Positive improvement - Promoting low cost alternatives is challenging

Public-private partnerships for creating and implementing innovative solution

- Beach caretaker programme- this programme as conducted as public private programme- required funds are provided by private companies
- Estbalishment of litter traps- this programme also conducted as public private partnership project and private companies provided required fund
- Beach cleaning programme- private companies provided fund and manpower and other support to carry out beach cleaning gprogramme
- Yarn for clothes is produced by private sector using waste plastics.
- Non usable residual plastic waste used as a fuel in cement kiln
- Ornaments, bricks, etc are made from recycled plastics by the private sector

Achievements

- Positive improvement- USAID - Objective is to introduce technologies to promote alternative products for SUP

Thailand

Policy actions for encouraging plastic alternatives

- Promote bio-products, circular product design, recycled material products

  Private-sector create and apply bio-degradable products under their companies branch, supply recycled product and sale for public

Achievement

Positive improvement

Public-private partnerships for creating and implementing innovative solution

- Innovation development to monitoring and collecting marine litters, and river litters.

  SCG litter Trap

  The Ocean Clean-up vessel

Achievement

Positive improvement

Türkiye

Policy actions for encouraging plastic alternatives

- Environmental Law Amendment

  With the amendment made in the Environmental Law in December 2020, the dissemination of zero waste and circular economy practices were included in the general principles regarding the protection, improvement and prevention of pollution of the environment. Another important step taken with this amendment is the regulation on the mandatory use of waste or recycled materials obtained from waste, which will greatly contribute to our country's circular economy vision in the coming period.

Achievements

No particular change - Sectoral and recycled material based studies and preparation of secondary legislations accordingly are needed.

UAE

Policy actions for encouraging plastic alternatives

- Program for the transition to the use of recycled plastic in the plastic industry

  Preparing a federal system (standard specification and federal legislation) that determines the percentage of recycled materials from plastic waste in the manufacture of plastic products and identifies a list of targeted private companies, focusing on the largest producers, and ensuring that a percentage of recycled materials from plastic waste is contained in their plastic products.

Achievements

The program is yet to be implemented on the national level

Public-private partnerships for creating and implementing innovative solution

- Research and development program in the field of waste management

  Develop a national agenda for research and development in the areas of waste reduction, treatment, and proper disposal.

  The application of new technologies and solutions to support the circular economy. A special focus shall be placed on adopting innovation in developing new smart solutions for waste management and tracking waste

  Encouraging innovators to present innovative ideas to address waste management challenges and enabling them to implement these ideas by coordinating with private investors to adopt these ideas and publish them on global innovation platforms.

Achievements

The program is yet to be implemented on the national level

UK

Policy actions for encouraging plastic alternatives

- Biodegradable and Compostable Plastics

  In April 2021 we published our response to the call for evidence on the need for standards for bio-based, biodegradable, and compostable plastics.

  On biodegradable plastics, repeated and strong concerns were raised in the responses to the call for evidence regarding the extent to which plastics marketed as biodegradable actually biodegrade in the open environment. There is currently a lack of evidence these materials consistently breakdown in real world environments, so may be a source of plastic and microplastic pollution.

For compostable plastics, these must be treated in industrial composting facilities to be broken down and, when processed incorrectly, can be a source of microplastics and contaminate recycling streams. Currently there is insufficient industrial composting capacity throughout England to manage compostable plastics at end of life. Stakeholder engagement and responses to our call for evidence highlighted that even when compostable plastics are sent to industrial composters, they are often stripped out along with other plastics and landfilled or incinerated.

The full response can be found here Standards for biodegradable, compostable and bio-based plastics: call for evidence - GOV.UK (www.gov.uk)

https://www.gov.uk/government/consultations/standards-for-biodegradable-compostable-and-bio-based-plastics-call-for-evidence

- Reuse

  Reuse is key to delivering our ambition of eliminating all avoidable plastic waste by 2042. We want to see greater use of reusable/refillable packaging which is why we have said we will do further work on measures to increase reuse and refill with the aim of introducing obligations on packaging producers from 2025 once the new arrangements for EPR are in place. One such measure could be to modulate the fees producers pay for managing their products once they've been discarded (become waste) to reward producers who use reusable systems.

  Additionally, as mentioned previously, we are supporting the development of reuse/ refill schemes by industry, through our funding of WRAP who run the UKPP.

- Oxodegradable/Oxobiodegradable Plastics

  As a result of the evidence received in response to the call for evidence and the review by the Hazardous Substances Advisory Committee on oxo-degradable plastics, we are minded to consult on a ban on these materials.

Achievement

In line with the waste hierarchy, after reduction, we must prioritise reuse and recycling before anything else. Biodegradable and compostable plastics are inherently single use and therefore our policies focus on achieving circularity and moving away from materials that can only be used once before being thrown away.

If put in the domestic waste bin, for example, they are likely to end up in landfill and can break down to release powerful greenhouse gases, such as methane.

If mistakenly recycled with other plastics, they have the potential to damage the quality of the new products made from the recycled plastic.

Our goal is to maximise resource efficiency and minimise waste (including plastic) - by following the principles of the waste hierarchy: Reduce, Reuse, Recycle – to keep plastic in circulation for longer.

Public-private partnerships for creating and implementing innovative solution

- Research and Innovation Fund
- Plastics and Waste Innovation Fund
- Industrial Strategy Challenge Fund
- Sustainable Manufacturing and Environmental Pollution (SMEP)

  The UK has put together a package of over £100m for research and innovation to tackle the issues that arise from plastic waste:

  - £40m has been set aside through the Plastics Research and Innovation Fund and the Plastics and Waste Innovation Fund for research and development, including £10m specifically to pioneer innovative approaches to boosting recycling and reducing litter.
  - The Government has also announced £60 million of funding through the Industrial Strategy Challenge Fund, alongside a £150m investment from industry, towards the development of smart, sustainable plastic packaging, which will aim to make the UK a world-leader in sustainable packaging for consumer products.
  - The SMEP programme, delivered in partnership with the United Nations Conference for Trade and Development, has committed up to £10m to address plastics pollution. SMEP is supporting 9 plastics pollution mitigation solutions across Ghana, Zimbabwe, Nigeria, Kenya and Democratic Republic of Congo and Nepal. Plastics solutions underway include establishing a multi-stakeholder research and development hub; plastics waste used as feedstock for solar power roof tiles; biodegradable mulch film; re-used plastic for plastic boat building; biodegradable fishing nets; plastic waste collection from rivers; tech-enabled plastic waste management systems; compostable lateral flow test cassettes; and tech-enabled waste management to repurpose plastics waste.

International

Innovate UK has developed and funded work on sustainable plastic packaging in India as well as South Africa, Kenya, Chile, Mexico and Colombia.

Specifically, we have provided £279,000 funding to establish a Plastics Pact in India and more than £3.7m for a dedicated Global Sustainable Plastic Packaging Programme to demonstrate demand driven innovation by sourcing innovation that addresses specific targets to reduce plastic pollution in Asia, Africa and Latin America. This has included the following support for research and innovation into solutions to tackle the global plastics challenge:

- Funding for technical research projects to dive deeper into the challenges facing the Plastic Pact members including sachets and small formats, rPET – using recycled plastic in food grade packaging, the role of informal waste workers, re-use and refill business models.
- Piloted initial feasibility studies to help us understand how UK innovators can work with the Plastic Pacts to resolve challenges.

- Two new Plastic Pacts are being established to build the global Pact network. Countries have been selected according to population size, waste problem and local interest. In addition, existing Plastic Pacts in India, Kenya, South Africa and Chile are being supported to stimulate collaboration, convene pilots, identify technical experts required to deliver innovations and engage Pact members in adopting innovation through this programme.
- Innovation Challenges are being run to meet the specific Pact country targets to reduce plastic pollution. Innovative SMEs are conducting Market Feasibility Studies and direct links will be made between Pact members and innovators to demonstrate how to accelerate the achievement of Pact targets through innovation.
- An online Innovation Exchange is being established to co-ordinate collaboration and learning across the Plastic Pact members to share best practice and innovative approaches. A pipeline of the best innovations from the UK will be showcased on this innovation platform to stimulate global collaboration and interest from the global plastic packaging supply chain.

- Public Private Partnerships (PPP)

  Through public-private partnerships with Unilever and the mobile industry association (GSMA), RED are supporting the development of innovative business models that encourage plastics reduction, reuse, recycling and reintegration into a circular supply chain. This includes an investment in Côte D'Ivoire (Coliba) that provides mobile credit to consumers in return for recycling plastic waste and Mr Green Africa, a Kenyan company primarily involved in the aggregation, sorting, cleaning, processing and reselling of plastics, among several other examples. Work was recently completed with Unilever and EY to landscape options for investments and steps needed to create an at-scale integrated supply chain for recycled material across sub-Saharan Africa (see below) and a similar paper for South Asia (India and Bangladesh) is currently underway.

  https://www.transform.global/news/mapping-the-integrated-supply-chain-for-plastics-in-africa/

- The Global Plastic Action Partnership (GPAP) brings together multiple civil-society stakeholders across the plastics supply chain to translate political commitments into investible action plans to reduce plastic pollution. GPAP brings together governments, NGOs and the private sector to devise National Plastic Action Partnerships (NPAPs), which focus on mobilising funding and leveraging expertise in-country to create circular economic solutions. GPAP has launched three such NPAPs in Indonesia, Ghana and Vietnam, with the former focused on devising a pathway to help the Indonesian Government to meet its target of reducing marine litter by 70% by 2025. GPAP has since launched further partnerships in Pakistan, Nigeria, and the Indian state of Maharashtra.

  The partnership is funded and supported by the governments of Canada and the United Kingdom as well as corporate partners Coca-Cola, Nestlé, Dow Chemical and PepsiCo, demonstrating its international focus. As a key supporter of GPAP, UK representatives sit on all NPAP Steering Boards (usually from the respective High Commission or Embassy in-country), which helps foster international collaboration.

  GPAP are currently developing their toolkit of modular services to respond to partners' individual needs. This includes the National Assessment and Monitoring Tool (NAM) and a 'Systems Toolkit to Eliminate Plastic Pollution – STEP', a digital platform that will allow partner countries to engage with the NPAP model.

US

Public-private partnerships for creating and implementing innovative solution

- EPA Resource Conservation and Recovery Act Voluntary Programs: Sustainable Materials Management Electronics Challenge

  EPA runs this challenge to encourage electronics manufacturers, brand owners, and retailers to improve and adopt sustainable materials management approaches. Each year, EPA gives awards to companies that 1) increase the volume of materials collected through "take-back" programs to be recycled at third-party certified electronics refurbishers and recyclers, and 2) can showcase innovative ways they manage materials, such as closing the loop on plastics recycling and using renewable packaging materials.

Achievement

- Sustainable Materials Management Electronics Challenge

  In 2017, EPA gave Dell an Honorable Mention in the Cutting-Edge Champion Award category of this program for their work in collecting ocean-bound plastics in Haiti and using these plastics in computer parts. Dell was previously awarded for working to establish a closed loop plastics recycling stream (2016) and for replacing much of their product packaging with renewable materials (2015). The program also awarded LG in 2017 for sustainability achievements in the design of their OLED line of televisions that included making sure all plastic parts were labeled to facilitate recycling.

- Clean Water Act

  Novel method for the extraction and identification of microplastics in ocean trawl and fish gut matrices. Research supported by the Environmental Protection Agency. https://www.semanticscholar.org/paper/Novel-method-for-the-extraction-and-identification-Wagner-Wang/0faad963e6c2d3e676ce0b64e203a4bdf133bc4a

EU

Policy actions for encouraging plastic alternatives

- Commission Implementing Decision of 10.2.2021 on a standardization request to the European Committee for Standardisation as regards circular design of fishing gear in support of Directive (EU) 2019/904

  The standard for circular design of fishing gear should provide the level playing field for organizations to develop higher quality and lower environmental impact fishing gear that is easily reused, repaired, re-manufactured, and recycled at the end of life stage, and should provide organizations the opportunity to act sustainably for healthier planet. The deadline to deliver the standard for circular design of fishing gear is set for May 2024.

- Biobased, biodegradable and compostable plastics

  The 2020 new Circular Economy Action Plan has confirmed the intention to develop an EU policy framework for biobased, biodegradable and compostable plastics, as a follow up action to the 2018 Plastics Strategy. In particular, the following sustainability challenges should be addressed: 1) Sourcing, labelling and use of biobased plastics (BBP), based on assessing where the use of biobased feedstock results in genuine environmental benefits, going beyond reduction in using fossil resources; 2) Use of biodegradable and compostable plastics (BDCP), based on an assessment of the applications where such use can be beneficial to the environment, and the criteria for such applications. Labelling a product as 'biodegradable' or 'compostable' should not mislead consumers to dispose of it in a way that causes plastic littering or pollution due to unsuitable environmental conditions or insufficient time for biodegradation. The European Commission has started preparatory work in view of this framework, which is due in 2022.

Public-private partnerships for creating and implementing innovative solution

- Plastics Circularity Multiplier group

  Twenty innovation projects teamed up to support the EU efforts to steer the plastics industry into the circular economy. The recently formed Plastics Circularity Multiplier group will share resources and expertise to enhance the impact of the projects receiving funding from the EU's Horizon 2020 research and innovation funding programme. More specifically, the Plastics Circularity Multiplier group will communicate to policymakers, the public and industry on a range of EU-funded innovations on plastics.

Others

- European Circular Economy Stakeholder Platform
- Commission Implementing Decision of 10.2.2021 on a standardization request to the European Committee for Standardisation as regards circular design of fishing gear in support of Directive (EU) 2019/904

  The European Circular Economy Stakeholders Platform is a joint initiative of the European Commission and the European Economic and Social Committee. It is an online platform to exchange best practices, knowledge and strategies to accelerate the transition towards the circular economy. As a place for knowledge, the platform features different contributions from stakeholders: good practices, national, regional and local strategies, studies and reports on the Circular Economy and commitments. In the section "good practices", stakeholders are able to submit directly their experiences to the platform. The sections on national, regional and local strategies, on knowledge and on voluntary commitments feature examples of the type of contribution we wish to collect. Many projects and initiatives on plastics, including their alternatives, can be found in the Platform's database, which is being continuously updated.

International Organisations and NGOs

ERIA

Technology development for plastic alternatives

- Information sharing on "Biodegradable and Compostable Plastics" in the ASEAN+3 context on the RKC-MPD website.

  Related link:

  https://rkcmpd-eria.org/practices/Government-Initiatives/reduction/biodegradable

IAEA

Technology development for plastic alternatives

- NUTEC Plastics activity area "Single use Eco-alternatives and Advanced Packaging Materials

  Radiation technologies can be used for making plastics, in particular for generating crosslinks between polymer chains or compatibilizing immiscible polymers. When bio-based feedstocks are used, eco-friendly, sustainable alternatives to petroleum-based single use plastics, such as biodegradable polymers, can be generated. Radiation processing can be used to generate crosslinks needed for ensuring the plastic's target properties and performance (e.g. heat resistance). Additionally, radiation processing can be used to render specific materials compatible with the bio-based plastic and thus tailor the composite material's performance to a target application. For example, active packaging products can be created, such as antibacterial packaging for food.

  The IAEA will launch in 2023 a new Coordinated Research Project (CRP) on the application of Radiation technologies to develop new materials with improved properties from renewable feedstocks One regional project in Asia and the Pacific provides support to Bangladesh, China, Indonesia, Malaysia, Myanmar, Pakistan, Philippines, Sri Lanka, Thailand and Viet Nam to strengthen regional capabilities in the application of radiation technology for reutilizing natural polymers for the production of industrial goods. One national project in Argentina and one regional project in Latin America and the Caribbean, supporting Argentina, Brazil, Bolivia, Chile, Colombia, Costa Rica, Cuba, Mexico, Panama, Uruguay, and Venezuela, which aim to contribute to building capacities in these countries to address the reduction of the environmental impact of natural and synthetic polymer wastes using irradiation techniques.

UNDP

Technology development for plastic alternatives

- UNDP has implemented several initiatives to support governments, communities and non-governmental organizations to test and pilot technologies for ecological alternatives to plastics. These have been promoted in large scale initiatives through UNDP's Accelerator labs (ACCLabs) and small-sized community initiatives. Many of these initiatives focus on, for example, developing technologies that incorporate biodegradable polymers in the manufacturing of packaging materials including biodegradable disposable tableware and containers of banana leaves and stems that replace plastic and polystyrene materials. For instance, UNDP supported the Government of Botswana to roll out a technology development project with a grant of USD19,316,300. This plastic-focused project tackles different aspects of waste management including the development of biogas technology. Through partnership between private sector and councils, the project is expected to advance innovation in waste management and harness home-grown solutions.
- At the community level, through the Small Grants Programme, UNDP has supported about 70 innovative plastics management projects. For instance, in Bulgaria, SGP supported the Blue Bird Foundation in an initiative that incorporates biodegradable polymers in the manufacturing of packaging materials. The necessity for such a project stems from the unsatisfactory current state of domestic waste management in Bulgaria, where landfilling is the only established option for plastic waste, and littering of the environment with such wastes is widespread. Many such SGP projects have been successful and there are efforts to replicate or scale up these successful community projects. These projects are supported with up to USD50,000 for small-sized community interventions and up to USD150,000 for strategic initiatives.
- Ocean innovator and startup Fortuna Cools is manufacturing cooling boxes that use waste coconut husks sourced in the Philippines from coconut farmers as insulation material for the Fortuna coconut coolers aimed at replacing fish and fresh food traders usage of styrofoam boxes in the Philippines and eventually Southeast Asia. During UNDP OIC support, they aim to reduce ocean plastics pollution by 50 tons per year.

UNIDO

Technology development for plastic alternatives

- UNIDO project "Support for transitioning from conventional plastics to more environmentally sustainable alternatives" in South Africa supports pilot production of single-use food containers with alternative material, of which sustainability is confirmed by life cycle sustainability assessment conducted by the Council of Science and Industrial Research (CSIR).

3.5. Education and Awareness-raising

Twenty-nine countries stated that they encourage education system to conduct public awareness-raising campaigns and 20 countries see its implementation as a positive trend. Moreover, awareness-raising campaigns were held at national, local and international levels, in 27, 18 and 18 countries respectively. The implementation of the awareness-raising campaigns held at national, local and international levels are seen to influence a positive trend by 18, 13 and 10 countries respectively. National campaigns are more widespread, compared with local and international levels.

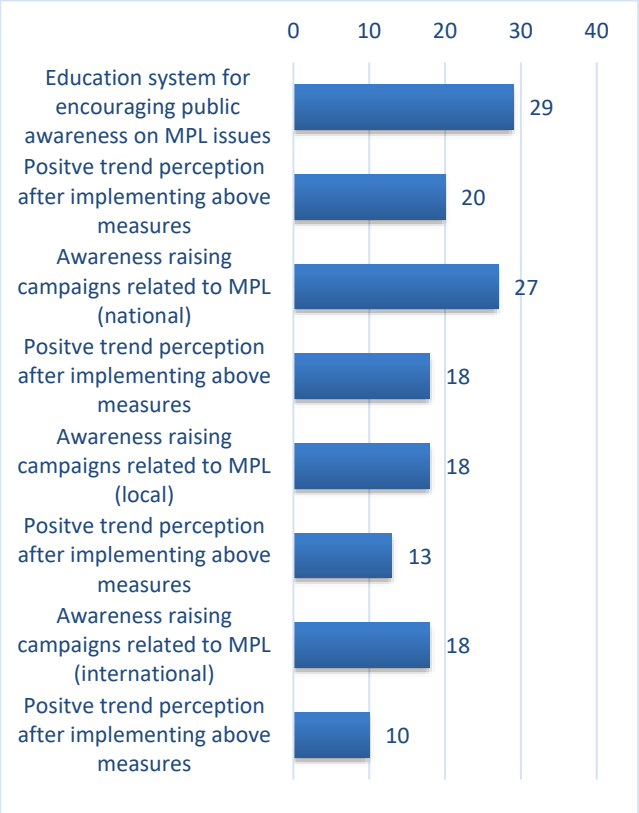

Figure 9: Countries - Education and Awareness-raising"

*Number of countries responded YES among 33 responses

Countries

Australia

Education system for encouraging public awareness on MPL issues

Achievements

Numerical data - Outreach/education activities, alongside local government policies have demonstrated a 29% average decrease of coastal litter in Australia over 6 years.

https://www.cell.com/one-earth/fulltext/S2590-3322(22)00263-9

Awareness raising campaigns related to MPL

National level

- Australia is implementing the Threat Abatement Plan for the impacts of marine debris on vertebrate wildlife of Australia's coasts and oceans (TAP).

  The TAP includes a range of management approaches for research and monitoring, public outreach and education, preventing and reducing debris from land-based sources as well as addressing marine-based sources and removing accumulated marine debris from the coastal marine environment.

- Plastic Free Beaches

  The Plastic Free Beaches initiative will work with businesses in eight identified geographic areas to phase out problematic single use plastics. The selected areas disproportionately contribute to marine plastic litter (e.g. high visitor numbers, density of retail and food outlets offering single use plastic items, proximity to the coast or waterways through which plastic pollution is transported).

- National Consumer Education Campaign on the ARL

  The Australasian Recycling Label (ARL) is a world-leading consumer education tool which helps households recycle and assists brand owners to design recyclable packaging.

Achievements

Positive improvement

Local level

- Plastic Free Beaches initiative

  Plastic Free Beaches will be delivered in partnership with Boomerang Alliance to eliminate single-use plastics from Australia's favorite beaches and support local businesses to switch to alternative products, simultaneously raising consumer awareness of the issue.

- National Consumer Education Campaign

  The National Consumer Education Campaign delivered targeted sessions and toolkits to local councils, waste educators and their waste contractors, and primary and secondary school students

Achievements

- Positive improvement
- Numerical data - As of July 2022, the ARL has reached a milestone of 250,000 SKUs on pack in Australia and 80,000 SKUs in New Zealand.

International / Regional level

- CSIRO Global Plastics Leakage project

  CSIRO's global plastics leakage project worked in over a dozen countries (many within the region) to build capacity, collect and collate data and develop national baselines. Work has also been undertaken with United Nations Coordinating Body on the Seas of East Asia (COBSEA) to enable regional partners to foster collaboration, harmonisation and professional development between COBSEA participating countries, as well as to conduct training of trainers on monitoring and assessment of marine plastic litter and microplastics across the region.

  https://research.csiro.au/marinedebris/projects-2/projects/globalplasticsleakageproject/

Achievements

Plastic Free Beaches is on track to eliminate/avoid 2 million items of single-use plastics from entering the community.

Brazil

Education system for encouraging public awareness on MPL issues

- Online course: Conscious behavior in the coastal and marine zone: combating marine litter.

  Designed for public managers and users of coastal and marine ecosystems, the Ministry of the Environment launched on its distance education platform, in 2021, the "Conscious behavior in the coastal and marine zone" course, with a focus on combating marine litter. Through it, MMA shares knowledge and basic information about the importance of ecosystems conservation in the Brazilian coastal and marine zone, encouraging responsible practices to improve environmental quality and care for natural resources. In the course, relevant initiatives and experiences are shared to serve as an inspiration for carrying out actions in the field.

  General purpose of the course:

  To present and raise awareness of the importance of coastal and marine ecosystems conservation, focusing on the implementation of responsible conducts for natural resources conservation and improving the urban environmental quality.

  PROGRAM CONTENT:

  MODULE 1 – It's not only about beaches! The coastal zone and its ecosystems.

  MODULE 2 - Challenges for conservation and maintenance of environmental quality in coastal and marine zone.

  MODULE 3 – Best practices, community mobilization and responsible behavior.

Achievements

- Positive improvement
- Numerical data: Course workload: 20 hours; 4 completed online classes; and 3,300 people registered.

Awareness raising campaigns related to MPL

National level

- Awareness-raising and informative materials.

  The Ministry of the Environment has released awareness-raising videos related to marine litter (including plastic). It is expected to encourage individual and collective actions to preventing and combat coastal and marine litter.

  They are available on:

  Combating Marine Litter Video: https://youtu.be/bjp40vRSMpw

  Conscious Behavior in Coral Reef Areas Video: https://www.youtube.com/watch?app=desktop&v=1sSRydVBg7w&t=2s

  In addition, the Ministry of the Environment has released a Practical guide for Beach, River and Mangrove Cleanups. It is an informative material, composed by a booklet and a video, designed to help volunteer groups organize cleanups and report their results to the MMA national database (Cleanups Results Dashboard), described at item 5.1 below.

  The Practical guide for Beach, River and Mangrove Cleanups booklet is available at:

  https://www.gov.br/mma/pt-br/assuntos/agendaambientalurbana/combate-ao-lixo-no-mar/roteiro-pratico-mutiroes-de-limpeza-de-praias.pdf

  The Practical guide for Beach, River and Mangrove Cleanups video is available at:

  https://youtu.be/7BsY0AMLTzU

Achievement

Positive improvement

Local level

- Cleanup actions on beaches, rivers and mangroves

  The Ministry of the Environment Cleanups Results Dashboard (see item 5.1 below) allows users to apply different search filters, according to their needs, to better identify the local cleanup actions carried out in Brazil. By June 2022, 184 municipalities in 26 Brazilian states had reported more than 460 cleanup efforts, for which it is possible to analyze, for example, their organizing institutions, the number of volunteers involved, the most collected items and the destination of waste.

Achievement

Positive improvement

International / Regional level

- GloLitter Partnerships Programme

  The Glolitter Partnerships Programme (GloLitter), funded by the Norwegian Agency for Cooperation Development (Norad) and implemented by the International Maritime Organization (IMO) in partnership with the Food and Agriculture Organization (FAO), aims to assist developing countries to prevent, reduce and control marine plastic litter (MPL) from the maritime transport and fisheries sectors, identifying opportunities for plastic use reduction. The Government of Brazil has presented an Expression of Interest to participate in the GloLitter, being one of the 10 Lead Countries. The role of these countries in their respective regions is to foster national actions in the context of supporting IMO Action Plan and FAO Voluntary Guidelines. After the Country Status Assessment, Brazil is, at this moment, elaborating its National Plan of Action considering legal, policy and enforcement measurements. The Ministry of the Environment is the coordinator of the Brazilian National Task Force, along with the Brazilian Navy, the National Waterways Transportation Agency and the Aquaculture and Fisheries Secretariat. GloLitter also contributes to UN Sustainable Development Goals and to FAO Blue Growth Initiative (BGI) objectives.

Achievement

Positive improvement

Canada

Education system for encouraging public awareness on MPL issues

- Canada has supported educational resources to inform youth about the impacts of plastic pollution and how to sustainably buy, use, dispose or recycle their plastic products, such as: the Anthropocene Educational Program and Ocean Plastic Education Kit, reaching over 22,000 Canadian teachers. The Government of Canada has an online video game - Climate Kids Plastics and Oceans – to engage youth about the issue.

  URL:

  https://anthropocene.canadiangeographic.ca/

  https://plasticsedkit.ocean.org/

  https://climatekids.ca/

Achievement

- Positive improvement
- Numerical data - Through Canada's Zero Plastic Waste Initiative, over 125 best practices, tools and educational materials have been developed to prevent and reduce plastic pollution.

Awareness raising campaigns related to MPL

National level

- Canada's comprehensive zero plastic waste agenda
- 10,000 Changes
- Be Plastic Wise
- Social media campaigns

  The Zero Plastic Waste Initiative has supported several projects that raise public awareness and encourage responsible decisions related to plastics, notably the 10,000 Changes and Be Plastic Wise campaigns that seek public pledges to actively and thoughtfully reduce plastic pollution.

  https://canadiangeographic.ca/

  https://ocean.org/action/be-plastic-wise/

  Federal, provincial and territorial governments have committed to strengthening information exchange and awareness that engage and enable Canadians and businesses to make sustainable choices to better manage plastic resources. This includes promoting tools and best practices and developing guidance on the use of labels and terms such as recyclable and compostable.

Achievement

- Positive improvement
- Numerical data
  - Over 24,000 Canadians pledged to take action to reduce plastic waste and pollution through the 10,000 Changes and Plastic Wise campaigns
  - The number of Canadian pledges to national campaigns has improved since 2018. Access to educational and awareness materials has increased since 2018.

Local level

- Municipal governments and local organizations implement awareness raising initiatives to address local and regional needs. For example, through the Zero Plastic Waste Initiative, Canada supports the Ocean Friendly Nova Scotia program and the Zero Plastic Waste Gros Morne Initiative, which helped to raise awareness and improve participation among local businesses and municipalities to address plastic waste and pollution.

  https://www.coastalaction.org/ocean-friendly-nova-scotia.html

  https://www.ahoi.ca/zero-plastic-waste-gros-morne-initiative

Achievement

- Positive improvement
- Numerical data - Zero Plastic Waste Initiative (2018-2022) funded local projects across Canada. The results below are national totals that represent 28 local or regional efforts:
  - Outreach to over 3 million people
  - ~325,000 kg of litter removed
  - >5,000 clean-up events

- 61 capture devices deployed
- >20 community science activities

International / Regional level

- Participation in international initiatives

  Canada participates in initiatives that increase awareness of marine plastic litter regionally and internationally. For instance, Canada, the United States and Mexico work collaboratively through the Commission for Environmental Cooperation to implement pilot projects, facilitate community action and increase awareness of marine plastic litter in North America. This includes the release of the Last Stop: The Ocean educational campaign and toolkit to raise awareness of how land-based plastic pollution ends up in our waters. In addition, a step-by-step guide on leading marine litter reduction community projects was developed - The Reducing Marine Litter through Local Action: A Toolkit for Community Engagement.

  Canada is also a member of the Global Partnership on Marine Litter and has pledged to the Clean Seas campaign, both initiatives have awareness raising components.

Achievement

Positive improvement

Chile

Education system for encouraging public awareness on MPL issues

The National Marine Litter and Microplastics Management Strategy considers as one of its main lines of action Strengthening environmental education and national capacities to prevent the generation of MR.

Achievement

Positive improvement

Awareness raising campaigns related to MPL

National level

- Communication campaigns on social media on marine litter

  Chile has developed several initiatives to involve stakeholder participation and information exchange regarding marine debris. Some of these activities are:

  - Communication campaigns.
  - Workshops and webinars on marine debris, with a strong focus on prevention.

International / Regional level

- Regional Group on Marine Litter and Microplastics of Latin America and the Caribbean – Webinar series on marine litter and legal tools to face the crisis

  https://www.unep.org/es/events/webinar/seminarios-web-basura-marina-herramientas-legales-para-afrontar-la-crisis

  The series of webinars organized by this regional group with UNEP had the objective of promoting the implementation of national and regional regulations and public policies to face the challenge of marine litter in Latin America and the Caribbean, informing and creating awareness with different stakeholders on the need of implementing measures related to this issue.

Achievement

Positive improvement

China

Education system for encouraging public awareness on MPL issues

In primary and middle schools, lessons about the classification of garbage, including plastic wastes, are opened to raise public awareness on wastes management and recycling. We strengthen publicity, education and scientific popularization, guide the public to develop green consumption habits and reduce the consumption of disposable plastic products, and consciously fulfill the obligation of sorting and throwing household waste.

Achievement

Positive improvement

Awareness raising campaigns related to MPL

National level

- Opinions on Further Strengthening Plastic Pollution Control

  We increase the publicity of plastic pollution control, and guide the public to reduce the use of disposable plastic products, participate in garbage classification, and resist excessive packaging. Making use of newspapers, radio and television, new media, and other channels, we publicize the effectiveness and typical practices of plastic pollution control. We guide industry associations, business groups, and charity organizations to conduct professional seminars and voluntary activities in an orderly manner, build consensus, and create a good atmosphere for the participation of the whole society.

  In terms of publicity and education, marine plastic survey and cleaning activities have become normalized by non-governmental environmental protection organizations and environmental protection volunteers, who have played active roles in preventing land-based garbage from entering the sea. Through newspapers, television, the Internet, and other media, we promote the prevention of marine plastic pollution by strengthening public education, also raise the public awareness on preventing and controlling of marine plastic pollution.

- Action Plan on Plastic Pollution Control (2021-2025)

  Through strengthening publicity, education and scientific popularization, we guide the public to develop green consumption habits, reduce the consumption of disposable plastic products, and consciously fulfill the obligation of sorting household waste.

- Marine Ecological Environment Protection Plan (2021-2025)

  We give full play to the guiding role of the media in public opinion, make full use of the important occasions such as the Environmental Day (June 5th), the Ocean Day (June 8th) and the International Beach Day. We carry out publicity and education activities of marine ecological environment protection, popularize scientific knowledge of marine ecological environment, spread the concept of marine ecological civilization, and build a number of examples who manage, protect and love the sea

Achievement

Positive improvement

Local level

- Coastal Cleanup and Public Education in Coastal Cities of China

  Dalian Municipal Environmental Protection Volunteers Association was founded in 2003. This association has been engaged in the publicity, education, and public participation of marine litter for a long time. At present, the association has more than 12,000 registered volunteers. The association has organized 32 large propaganda activities and nearly one thousand activities throughout the year. Nearly two hundred thousand brochures of the public marine conservation publicity had been issued to more than millions of people. Two hundred thousand volunteers have participated in the coastal cleanup activities.

  From 2009 to 2019, the Blue Ribbon Ocean Conservation Association has been carrying out publicity, education, and public participation on Marine litter. This association has a total of 128 member units and nearly 100,000 registered volunteers. In 2019, the association organized 798 publicity activities on marine litter, distributed 68,000 copies of publicity materials, and publicized marine protection to more than 7.114 million people. With a total of 317,300 volunteers participating in marine litter cleanup activities, 38.49 tons of litter on the beach and 0.25 tons of litter on the seabed were cleaned up.

Achievement

Positive improvement

International / Regional level

- International Coastal Cleanup

  In 2021, the national beach clean public welfare activity of "guarding the beautiful coastline and acting together" was held in 27 coastal cities in China. About 300 related organizations and more than 5,000 volunteers participated in the activity, with more than 200 media following up. This activity was strongly supported by relevant departments of coastal governments at all levels. Under the leadership of three main venues in Lianyungang, Taizhou and Tianjin, 24 cities held branch events.

Achievement

Positive improvement

Costa Rica

Education system for encouraging public awareness on MPL issues

Education plan for waste management.

Achievement

Positive improvement - The plan is led by the Ministry of Public Education (MEP).

Awareness raising campaigns related to MPL

National level

- Education and awareness campaign on plastic pollution
- Awareness in radio and television media

  The Ministry of Public Education designs and implements the plan in schools and community target groups.

  Advertising shorts have been designed to raise awareness of the problem of waste in general and marine residues in particular. In addition, within the framework of the National Recycling Strategy, the campaign "As Easy as" was publicized (As Easy as reducing, recovering, separating and recycling) and within the framework of the Single-Use Plastic Strategy, the educational campaign called "I commit" was publicized (I am committed to reducing, reusing, recovering and recycling).

Achievement

- Positive improvement

  The education and awareness-raising plan begins in schools and educational centers in the country and extends to the communities.

  Television and radio campaigns implemented for periods from 2016 to 2019.

Local level

- Open education in marine residues management

  The educational process is diverse and developed by several actors. Specific actions are carried out by Non-Governmental Organizations and other Ministries such as the Ministry of Environment and Energy and the Ministry of Health.

Achievement

- Positive improvement

  Among the actions that are developed within the framework of the implementation of the National Resides Plan, organizations such as the Foundation Center for Technological Management and Industrial Informatics (CEGESTI) that develops the PROMAR Project for the reduction of Marine Pollution in the Caribbean and Central Pacific; the Central American Association for the Economy, Health and the Environment (ACEPESA), developed the Project called Inventory of marine residues from the fishing sector of the Golfo Dulce, Puntarenas, Costa Rica, have been developing educational activities intersectorally in order to raise awareness about the problem of marine residues to improve the current conditions.

  Similarly, the MareBlu organization in the central Pacific, has not only intervened for years in beach cleaning campaigns but also in educational processes, with schools and communities. Other regional organizations, such as Mar Viva, have also provided an important effort to intersectoral environmental education.

  During this year (2022) the Ministry of Health and the Directorate of Environmental Quality Management (DIGECA) on behalf of the Ministry of Environment and Energy, developed in June 2022 the National Marine Residues Plan and the implementation of the Methodological Guide for the collection of waste on the beach, in the Brunca region in the south of the country, with actors linked to the National System of Conservation Areas, Governing Areas of Health, Aqueducts and Sewers, Associations of Communal Aqueducts, private companies, NGOs and the community.

- Numerical data - In all the open education events which we have executed, around 500 people (leaders) have been trained to start a process of awareness on the issue of marine debris and marine pollution.

Fiji

Education system for encouraging public awareness on MPL issues

The importance of the oceans to sustain livelihoods, proper waste (plastics) disposal/management and keeping our oceans clean are part of the school curriculum.

Achievement

Positive improvement

Awareness raising campaigns related to MPL

National level

- Commemoration of World Environment Day, World Recycling Day, World Clean Up Day

  Awareness campaigns are driven towards different levels of targeted audiences depending on the themes of the commemorated days.

Achievement

Positive improvement – The general public are becoming more aware of the laws and environmental issues around them. Knowledge is also evident through the number of complaints relating environmental law breaches and crimes being registered.

Local level

- Community outreach and enforcement trainings for communities on waste management.
- Providing support to communities for clean-up campaigns.

  Awareness campaigns and cleanup initiatives are supported to sensitize the public on proper waste management and clean environment.

Achievement

Positive improvement

International / Regional level

- Raising concerns through international and regional platforms on increasing MPL.

  Fiji called for a legally binding instrument to address plastic pollution and will continue to actively engage with countries to address the issue.

Achievement

Positive improvement

France

Education system for encouraging public awareness on MPL issues

- In 2020, the Ministry has launched the “Beaches without plastic litter” chart in link with local authorities. This chart is composed of 3 categories of actions and public awareness is one of them. Raising awareness through education is a commitment that local authorities are to implement. Multiple educational actions are already taking place.
- Creation of educative marine protected areas and organization of collection of marine litter.
- Financing organizations to propose workshops for fishing for litter actors including fishermen and students of training organizations in the sea trades

Achievement

- Positive improvement
- Numerical data - 67 local authorities have signed the Charter.

Awareness raising campaigns related to MPL

National level

- Actions on the seashore and at sea;
  - Implementation of awareness raising actions to the benefit of fishing and aquaculture activities;
  - Raise awareness of amateur boaters through the “I sail, I sort” campaign.
- Awareness raising actions
  - Put in place a citizen science platform on marine litter to identify the clean-up actions that take place, monitor the data and share best practices;
  - Develop awareness raising and actions to inform citizens of the pollution, its impacts and the good practices to have.
- Multi-stakeholder involvement
  - Regular consultation of stakeholders involved in marine litter issues (NGOs, experts, agencies...) through annual meetings.
  - Implement voluntary commitments of NGOs, major retailers and brand owners (through the “National Pact on plastic packaging”) on prevention measures (elimination of harmful or unnecessary plastic packaging and improved recycled content) accompanied by a monitoring system with pertinent features (transparency, independence, auditable).

Achievement

Positive improvement

Local level

- Support the associations that launch awareness raising actions and clean-ups;
- Actions with fishermen, ports, collectivities, youth, etc.
- Development of marine educational area : a small coastal maritime area, managed in a participatory way by the students and teachers of an elementary school, following principles defined by a charter
- “Beaches without plastic litter” chart in link with local authorities :
  - indications at the entrance of beaches and signs "here begins the sea" next to certain sewers
  - raise awareness among shopkeepers, sports clubs, owner of tourist establishments, etc.

Achievement

Positive improvement

International / Regional level

- Actions under OSPAR convention

  In the context of the ICG-ML, the working group dedicated to marine litter, the OSPAR Secretariat has developed a communication kit on the actions led by the Contracting Parties in the implementation of the Marine Litter Regional Action Plan. This kit also aims at raising awareness on the work implemented through OSPAR and on the impact on marine litter.

Achievement

Positive improvement

Germany

Awareness raising campaigns related to MPL

National level

- Runder Tisch Meeresmüll (RTM, www.muell-im-meer.de)

  The “Runder Tisch Meeresmüll” (www.muell-im-meer.de) has been set up to operationalize the national MSDF PoM. Around 130 stakeholders from different sectors are involved. It also serves as a great network to spread e.g. initiatives for awareness raising.

Local level

- One measure of the MSFD regards “Local provisions” (UZ5-08).

  The RTM has produces two guidances for municipalities on best practice examples to prevent plastic waste and on legal options to tackle marine litter. In addition DE is partner in the Interreg-project CAPonLITTER,. In this context an Action Plan has been developed which major cities/municipalities are currently signing up to.

  See also:

  https://www.muell-im-meer.de/Kommunen-Regelungsmoeglichkeiten

  https://www.muell-im-meer.de/Kommunen-Best-Practice

International / Regional level

- Within Grant Programme “Marine:DeFraG"
- OSPAR/HELCOM Regional Action Plans on Marine Litter

  The German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer (BMUV) is supporting the engagement of the German government with its Grant Programme against Marine Litter ‘Marine Debris Framework – Regional hubs around the globe’ (Marine: DeFRAG). The main goal of the Grant Programme is to prevent plastic waste at the source.

  See https://www.z-u-g.org/en/responsibilities-and-tasks/grant-programme-against-marine-litter/

  Both Regional Sea Conventions for the Protection of the North-East-Atlantic (OSPAR) and the Baltic Sea (HELCOM) have Regional Action Plans in place which address the relevant sea- and land-based sources for Marine Litter as well as awareness raising and removal. DE is leading on a number of actions.

Achievement

Positive improvement

Indonesia

Education system for encouraging public awareness on MPL issues

- As part of strategy 1 of NPA of MPL, the government c.q Ministry of Education has published a set of education book related to waste management for elementary students, and junior high school.
- The government also works with private sectors to publish similar education book related to waste management and MPL.

Achievement

Positive improvement

Awareness raising campaigns related to MPL

National level

- Reducing MPL/waste campaign

  Reducing MPL/waste campaign which initiate by students, NGO, and government using social media channel or national event

Achievement

No particular change

International / Regional level

- Campaign on reducing MPL/waste generation

  Local campaign on reducing MPL/waste generation e.g : in school (Adiwiyata) or government.

  There are schools in every provinces that participated the Adiwiyata program

Achievement

No particular change

Italy

Education system for encouraging public awareness on MPL issues

- ISPRA program of environmental education initiatives for sustainability, aimed at schools of all levels https://www.isprambiente.gov.it/it
- The Researchers' Night is an initiative promoted by the European Commission since 2005 that involves thousands of researchers and research institutions in all European countries every year. The goal is to create opportunities for researchers and citizens to meet to spread scientific culture and knowledge of the research professions in an informal and stimulating context
- ScienzaInsieme to promote scientific dissemination. It offers to a wide audience the opportunity to experience science in laboratories, in conferences, seminars, scientific cafes, tours, exhibitions and during the numerous activities designed for children and families and the schools.

  ScienzaInsieme spreads information, news, videos on the main events and initiatives in the scientific world https://www.scienzainsieme.it/

Achievement

Positive improvement

Awareness raising campaigns related to MPL

National level

- "Plastic free" campaign promoted by Ministry of Ecological Transition that involves different actors (municipalities, universities etc.)
- Awareness raising campaigns related to MPL promoted by NGOs (Marevivo, WWF et c.)

  Raise awareness about plastic pollution and promotion of virtuous behaviors and sustainable use of resources. Promotion of reduction and progressive elimination of disposable plastic.

Japan

Education system for encouraging public awareness on MPL issues

- "Plastics Smart" campaign was launched in 2019 to encourage all stakeholders to eliminate marine litter
- Clean-up campaign "UMIGOMI Zero Week" ("umigomi" means marine litter in Japanese)

Achievement

- Positive improvement
- Numerical data
  - Number of registered cases for "Plastics Smart" campaign

	FY2021
Total	2,806 cases

  (Reference)
  http://plastics-smart.env.go.jp
  - Clean-up campaign "UMIGOMI Zero Week" ("umigomi" means marine litter in Japanese) was organized with the participation of 150,000 citizens in 2021.

Awareness raising campaigns related to MPL

National level

- Plastics Smart

  The "Plastics Smart" campaign was launched to encourage all stakeholders to eliminate marine litter.

- UMIGOMI Zero Award

  "UMIGOMI Zero Award" is held to award good practices ("umigomi" means marine litter in Japanese). There were 276 applications in 2021.

- Good Practices for Reducing Microplastics

  "Good Practices for Reducing Microplastics" is a collection of initiatives and technologies by Japanese companies, contributing to the prevention, reduction, and collection of microplastics. The good practices are then disseminated domestically and internationally.

Achievement

- Positive improvement
- Numerical data

  Number of registered cases for “Plastics Smart” campaign

	FY2021
Total	2,806 cases

  (Reference)

  http://plastics-smart.env.go.jp

Local level

- Local Blue Ocean Vision Project

  Local governments have conducted model projects to measure marine litter as a common issue for both coastal regions and inland areas. Five regions were newly selected as model areas in FY2021.

Achievement

Positive improvement

International / Regional level

- Regional Knowledge Center for Marine Plastic Debris

  Regional Knowledge Centre for Marine Plastic Debris was established at ERIA (Economic Research Institute for ASEAN and East Asia) in 2019 with the support of the Ministry of the Environment, Japan. The center carries ou information-sharing to raise awareness and promote actions taken by private sector and citizens.

  The specific approaches are as follows;

  - Creating an online platform to share good practices accomplished by the private sector
  - Providing information on related policies for the private sector
  - Sharing positive case studies of good practices of private companies

- Contributions to the G20 Report on Actions against Marine Plastic Litter and relevant website updates

  Japan has provided support to the G20 presidency countries to carry out the G20 Marine Plastic Litter reporting initiative since 2019. Actions against marine plastic litter taken by 42 countries and 13 institutions / NGOs are summarized in the latest report.

Achievement

Positive improvement

Mexico

Awareness raising campaigns related to MPL

International /Regional level

- Campaing “Last stop: the ocean”

  http://www.laststoptheocean.com/

  With the support of the Commission for Environmental Cooperation, an outreach campaign was developed for Mexico, the U.S. and Canada, called "Last Stop: The Ocean”

  This campaign aims to raise awareness among the population living inland that garbage can "travel" to the ocean through drains and rivers.

Myanmar

Awareness raising campaigns related to MPL

Local level

- Sunday Stop

  In State and Region, State and Regional Environmental Conservation Department conduct awareness raising campaign on stop using single use plastic packaging on Sunday in markets.

- State and region Environmental Conservation Department staff conducted awareness raising activities in states and regions with the cooperation of relevant stakeholders and department.

Achievement

Positive improvement

Netherlands

Education system for encouraging public awareness on MPL issues

- VANG Buitenshuis, an educational programme focused on waste disposal habits in youngsters.

  Education program in Netherlands

  - Onderwijs - VANG Buitenshuis
    https://vangbuitenshuis.nl/branches-0/onderwijs/
  - Zoeken - Zoekresultaten - VANG Buitenshuis
    https://vangbuitenshuis.nl/vaste-onderdelen/zoeken/?mode=zoek&zoeken_term=english&zoeken_sortering=PubSttDtm&Zoeken_button=

Awareness raising campaigns related to MPL

National level

- Communication initiative to promote good waste disposal habits in consumers

  Communication initiative with municipalities, companies and NGO´s to promote good waste disposal habits in consumers

Norway

Education system for encouraging public awareness on MPL issues

- Blue Responsibility (Blått ansvar) educational videos and material.
- Several initiatives make educational material available for free, such as the non-profit Loop and Rusken. The Norwegian Broadcasting Company also has available programs for children often used in schools on waste management/plastics. Waste Management Companies (both public and private) provide videos on sorting of waste, plastics etc.
- In higher education there are several courses on circular economy.
- The Norwegian Directorate for Fisheries adopted in 2021 a dedicated action plan on marine litter. This action plan includes compulsory educational modules on marine litter for professional fishermen.

Achievement

Positive improvement

Awareness raising campaigns related to MPL

National level

- The Directorate of Fisheries has launched an Action Plan on Marine Litter which includes measures on awareness raising.
- Keep Norway Beautiful has extensive information campaigns.
- Several active NGOs in the field, such as Friends of the Earth Norway (Naturvernforbundet) and World Wildlife Fund (WWF) Norway.
- School children are for example included in beach clean-up actions run by various voluntary local and national organisastions.
- Centre against marine litter (Marfo) and The Norwegian Retailers' Environment Fund (HMF) also contributes with awareness building campaigns.

Local level

- Several municipalities, have such campaigns, including the campaign "Rusken" in Oslo.
- Clean-up actions all around the country contributes to awareness building.

International level

- Norway are involved in or supports such campaigns in many fora. Some examples are:
- The Regional Action Plans on Marine Litter in the Arctic under PAME and for the North-East Atlantic under OSPAR includes actions on awareness raising.
- Norway has since 2016 been part of and a contributor to the UNEP Clean Seas Campaign.
- Projects under the Nordic Council of Climate and Environment Ministers includes elements of awareness building.

Peru

Education system for encouraging public awareness on MPL issues

- Program "The Environmental Hour"

  The Environmental Hour is a virtual space promoted by MINAM and the Ministry of Education (Minedu) and seeks to provide specialized information to the educational community (environmental education and pedagogical specialists from DRE/GRE and UGEL, teachers, managers and students) as well as citizens on various environmental issues, in order to promote dialogue around the challenges we face in the framework of remote education. During 2020 and 2021, 05 sessions or broadcasts of the Environmental Hour were held, in which information was provided on the importance of regulating single-use plastic and disposable containers or packaging, as well as using other more environmentally friendly alternatives. the environment.

- Programa Educca

  The MINAM, through the promotion and assistance actions that it has been carrying out within the framework of the EDUCCA Municipal Program, has achieved that to date 273 municipalities of 479 local governments nationwide, incorporate the promotion of responsible consumption of plastic within their activities. To carry out these actions, 33,838 environmental promoters were accredited and managed to benefit approximately 22,510,776 citizens.

Achievement

Positive improvement - 97,363 users reached by the Program "The Environmental Hour".

273 municipalities of 479 local governments nationwide, incorporate the promotion of responsible consumption of plastic within their activities.

33,838 environmental promoters were accredited and managed to benefit approximately 22,510,776 citizens.

Awareness raising campaigns related to MPL

National level

- Campaign "Less plastic, more life"

  The #LessPlasticMoreLife initiative was launched on June 5, 2018, in order to promote the responsible consumption of single-use plastics such as plastic bags, straws and Styrofoam among citizens. Environmental education and information actions were carried out to raise awareness among citizens, market traders and supermarket chains about the importance of responsible consumption of plastic. It had the support of environmental promoters,

  municipal promoters and/or environmental leaders. This campaign has a space on the MINAM website.

- Campaign "Less plastic, more life"

  "Peru Limpio" is the environmental educational strategy of the Peruvian State that seeks to improve citizen practices for proper management of solid waste in the country. Since September 10, 2019, Peru Clean is considered a multisectoral and decentralized strategy and is made up of 4 communication axes that promote the active

participation of the entire society: responsible consumption, cleaning, recycling and payment of taxes. To reinforce the axis of responsible consumption, within the framework of the Clean Peru strategy, messages on responsible consumption of single-use plastics were developed in campaigns and massive events. The strategy has a website with educational resources.

Achievement

Positive improvement - Through the indicated and other complementary actions carried out by MINAM. From January 2019 to December 2021 there are the following achievements:

- 445 (Four hundred and forty-five) educational, training and awareness-raising actions or activities carried out on the responsible consumption of plastic and integrated solid waste management.
- 1,021,668 (one million twenty-one thousand six hundred and sixty-eight) people reached.
- 710 (seven hundred and ten) organizations reached.

Republic of Korea

Education system for encouraging public awareness on MPL issues

- "The comprehensive plan on marine environment education (2021-2025)" will be announced this year in accordance with the "Environment education promotion act". Based on the plan, MOF will provide online education programs to raise awareness on marine litter and to encourage people to protect the marine environment starting from this year.

  Along with this, "The 1st national action plan on marine litter and marine contaminated sediments (2021-2030)" includes the comprehensive public awareness plan to provide marine litter education targeting all age groups through collaborative work between MOF and KOEM.

Achievement

Positive improvement

Awareness raising campaigns related to MPL

National level

- Comprehensive plan on raising marine litter awareness

  MOF and KOEM establish a comprehensive plan every year to effectively raise public awareness on marine litter using various measures such as online and offline public campaigns and collaboration with the private sector.

- Collaborative work with the private sector

  KOEM which is an affiliated organization of MOF signed MOU with two major corporations P&G korea and Terracycle korea to recycle marine plastic litter and jointly work on public campaigns and clean-up activities to reduce the use of plastic products and to protect the marine environment.

Achievement

Positive improvement

International / Regional level

- Strengthening and Improvement for Marine Litter response in Indonesia
- Enhancing Marine Litter Management in Manila Bay, Phillipines (2021-2025)
- Marine Debris Mitigation by Enhancing River Waste Management in the Republic of Indonesia(2021-2025)
- Reducing Marine Plastic Litter in East Asian Seas (2023-2028, tbd)

ROK has been working on international cooperation projects to reduce global marine litter, specifically in neighboring Southeast-Asian countries. Past ODA projects focused on enhancing the capacity of marine litter management through workshops and scientific monitoring education programs that targeted related stakeholders such as government officials, NGOs and local residents.

ROK is planning to develop and implement projects with regional intergovernmental organizations to establish small scale lifecycle marine debris management systems.

Achievement

Positive improvement

Republic of Marshal Island

Education system for encouraging public awareness on MPL issues

It's currently in progress, however, so far RMI EPA has been presenting to the local governments as well as other relevant stakeholders' in the importance of reducing marine pollution from land-based resources as well as developing a plan to address the marine pollution issues.

Awareness raising campaigns related to MPL

National level

As aforementioned, RMI EPA's team have been presenting and discussing with relevant stakeholders about the marine pollution issues and what their organizations can do to reduce it.

Local level

Presenting to mayors from other islands about the importance of reducing marine pollution from any land-based resources.

Samoa

Education system for encouraging public awareness on MPL issues

Achievement

- Positive improvement - Consultations and school programs have been conducted to promote preventive measures to avoid dumping of wastes in river systems ending up in our ocean. The MNRE through the Divisions of Environment and Conservation and Water Resources Management work closely with local communities through national clean-up campaigns for targeted rivers and mangrove areas. Awareness programs include community consultations, school programs, radio talk-back shows and televised advertisements.
- Numerical data - See MNRE Annual Reports

Awareness raising campaigns related to MPL

National level

- TV and radio talk shows, billboards

  Ongoing media shows(tv and radio) with feedback from the audience on live shows were positive.

Achievement

Positive improvement - Positive feedback from the public on live radio shows supporting national efforts on plastic ban and littering. For example, the Ministry has received very positive response from villages involved in the mangrove clean-up campaign such as the Moataa and Vaiusu villages.

Local level

- Community outreach programs

  Community clean ups and presentations

Achievement

Positive improvement - Community based clean ups have been very effective in promoting awareness programs on proper waste disposal, impact on mangroves and community actions needed.

International / Regional level

- International and regional dialogues

  Discussions of possibilities of having a legal global instrument to address plastic pollution.

Saudi Arabia

Education system for encouraging public awareness on MPL issues

Actions B1 to B4 of the “National action plan for sustainable management of Marine Litter in the Red Sea coast of Kingdom of Saudi Arabia” have an objective to “Raise public and government awareness of the impact of marine litter to the marine environment, economy, and human health through the implementation of education and awareness programs and literature. In preparation stage.

Achievement

No particular change observed yet

Awareness raising campaigns related to MPL

National level

See above.

Achievement

No particular change observed yet

Singapore

Education system for encouraging public awareness on MPL issues

- Nationwide “Say YES to Waste Less” campaign which is aimed at influencing the public to reduce the use of disposables
- Working with environment groups such as Zero Waste SG, the Public Hygiene Council (PHC), International Coastal Cleanup Singapore (ICCS) and the Waterways Watch Society (WWS) to foster shared ownership in keeping the environment clean and minimising waste. For example, ICCS organises clean-up initiatives to engender ownership among youths and other members of the public, and Zero Waste SG launched a Bring Your Own (BYO) campaign that provides educational tips and engage retails partners to provide incentives to encourage consumers to use their own reusable containers, bottles and bags leading to reduction in plastic waste
- Singapore’s MPA organises maritime environmental outreach programmes including talks on marine conservation, underwater clean-up, and online content such as quizzes, animation videos and tutorials, to raise awareness on the importance of protecting the marine environment.

Achievement

Positive improvement

- Since the “Say YES to Waste Less” campaign was launched in 2019, the number of retail partners have increased from 59 to 169 organisations in 2021. Collectively, they cover nearly 3,000 retail outlets in Singapore. They have put in place different measures to encourage consumers to reduce their consumption of single-use products particularly carrier bags, bottles and containers, such as through incentivization or reminding customers to opt out of disposables.
- To educate and encourage the public to reduce waste and BYO, educational content was shared on out of home, social and digital media channels. Outreach and engagement activities was also conducted amongst the community and in schools.

Senegal

- The development and implementation of a communication strategy based on press briefings, media interventions, skits and commercials

Achievement

Any particular trend

Spain

Education system for encouraging public awareness on MPL issues

- Volunteer campaigns to clean rivers and beaches
- Field card for organizations and individuals to help monitoring marine litter
- Citizens decalogue for marine litter
- Celebration of World Ocean Day
- Informative workshops on Marine Strategies in Spain

Awareness raising campaigns related to MPL

National level

- Preparation of awareness/communication materials
- Establishment of a technical group on marine litter (national hub) (which organises public events within the National Environmental Congress) and stimulation of national discussion in the form of periodic roundtables with stakeholder participation.
- Creation of "Guardians of the Beach" program, aimed at associations, environmental organizations, fishermen, fishing associations and other groups and a network of "guardians" organizations to ensure environmental preservation of rivers and beaches and awareness to this problem at local, regional and national levels.
- Additionally, some horizontal measures in the Marine Strategies may include marine litter as a subject among other marine aspects:
    - Awareness programs for beach tourists, nautical tourism companies, as well as fishermen and civil society in general, including schools.
    - Training programs for fishermen, observers on board, stranding networks personnel, and training for Public Administration managers.
    - Development and implementation of a curriculum related to the respect and protection of cetaceans, marine turtles and seabirds as well as marine litter in the ship masters' official courses (yacht and fishing).

Sri Lanka

Education system for encouraging public awareness on MPL issues

- We have carry out sector based awareness programme to educate the relevant sectors related marine litter issues solution and their contribution
- Waste management is included in the school curriculum
- Environment Brigade, Environment Clubs, Environment Societies in schools conduct waste management programmes.
- Many schools do not allow students to bring in single use plastic bags to school and establish plastic waste free zones
- Many projects operate within the school to manage plastics, encourage recycling of plastics
- Some schools do have card or bank deposit systems for providing cash for students for waste plastics through recyclers.

Achievements

Positive improvement

Awareness raising campaigns related to MPL

National level

- Coastal and marine environment conservation week programme
- This week allocated to educate and carry out beach cleaning programme and awareness programme for different sectos
- Comprehensive Communication strategy is developed for plastic waste management including MPL
- Visuals developed on plastic waste management for telecasting
- Awareness is created through mass media
- Awareness is created through government channels , private sector, NGOs

Achievements

Positive improvement

Local level

- School Marine Group Porgramme

  The School marine groups were established at selected school and guidebook has been introduced including programme should be conducted in each level. School children participate class room activities and filed activities related to marine environment and marine environment protection

Achievements

Positive improvement

International/Regional level

- Development regional marine litter action plan

  Action plan for the south Asian region seas countries has been formulated with assistance of SACEP- but not yet implemented.

Achievements

More than 371 school marine groups were established in coastal region school so far.

Thailand

Education system for encouraging public awareness on MPL issues

- Promote and provide some course on proper separation litters and reduce waste from sources.
- School competition to get green school award for well management solid wastes.

Achievements

Positive improvement

Awareness raising campaigns related to MPL

National level

- Promote the impact on marine creatures by marine plastic litters.
- Save sea turtle. Save marine life.

  "Save marine life and reduce marine debris to marine ecosystem, with emphasis on marine mammals, and sea turtles" Exhibition

  Knowledge sharing in DMCR website on marine debris impact

Achievements

Positive improvement

Local level

- Cleanup activities on the beach nearby communities.
- Separation on plastic items before become waste campaign

  Regularly promote the waste separation during community meeting

Achievements

Positive improvement

International / Regional level

- Join the ICC day,
- Sharing knowledge with ASEAN and non-ASEAN member states to reduce and combat with marine litter.

  Participate webinar, meeting and conference

Achievements

Positive improvement

Türkiye

- There is no systematic action for encouraging public awareness on MPL issues related to education system. However, Türkiye has started a movement namely Zero Waste Blue. Limited education activities are carried out by institutions/organizations and NGO's under this movement.

Achievements

Positive improvement

Awareness raising campaigns related to MPL

National level

- Zero Waste Blue Movemen

  The Zero Waste Blue Movement is a call for ensuring clean marine environment all over the Turkish coastline. The movement's main goal is to protect the marine environment and support cleaning activities. All citizens, non-governmental organizations, relevant institutions and media are invited to take action for the protection of the marine environment and to support awareness raising activities under this movement.

Achievements

- Positive improvement
- Numerical data: Due to Covid-19 restrictions, online campaigns were held. More than 500.000 students and 25.000 teachers were trained online. In addition, more than 100.000 people were trained face-to-face since the beginning of Zero Waste Blue Movement (2019) with the support of NGO's.

Local level

- Zero Waste Blue Movement

  The local activities are carried out within Zero Waste Blue Movement and Provincial Marine Litter Action Plans.

Achievements

Positive improvement

UAE

Education system for encouraging public awareness on MPL issues

- Launching education and awareness programs focusing on the principles of reducing the waste generation, reusing and recycling, sorting waste from the source. The Programs and workshops focus on municipal solid waste in general, e-waste, food waste, plastic waste and single-use items and the principle of extended responsibility.

Achievements

Positive improvement

UK

Education system for encouraging public awareness on MPL issues

Domestic

- Through the British-Irish Council commitment the UK is working to improve marine litter education materials for professional fishers, schools and others through the sharing of materials and resources.

International

- The UK funds the Tide Turners Plastic Challenge Badge which is a youth engagement programme delivered by the United Nations Environment Programme (UNEP), in partnership with the World Organisation of the Scout Movement, the World Association of Girl Guides and Girl Scouts and Junior Achievement, as well as specific in-country partners. So far over 370,000 young people have participated in the challenge. The badge not only encourages young people to take action to reduce plastic waste in their own lives, but helps them become leaders in their communities to make sure that as many people as possible join the global fight to tackle the scourge of single-use plastics that is damaging the ocean.

Awareness raising campaigns related to MPL

National level

- Anti-litter campaign

  Defra launched the "Keep it, Bin it" anti-litter campaign in 2018 with Keep Britain Tidy. The campaign, which includes images of litter in the marine environment, encourages people to dispose of their litter responsibly, calling time on rubbish excuses for littering and telling people to keep hold of their rubbish until they find a bin. The campaign has been publicised through various media channels, including on social media and at travel hubs across England.

International / Regional level

- Blue Planet Fund (BPF)

  The UK has launched a £500 million Blue Planet Fund that will support developing countries to protect the marine environment and reduce poverty.

  Financed from the UK Official Development Assistance Budget, the Blue Planet Fund will help eligible countries to reduce poverty, protect and sustainably manage their marine resources and address human-generated threats across four key themes: biodiversity, climate change, marine pollution, and sustainable seafood.

  The BPF aims to reduce marine pollution through action on land-based and sea-based sources that also contributes to improved livelihoods and healthier environments.

- The Commonwealth Clean Ocean Alliance (CCOA) brings together member states, businesses, NGOs and civil society from across the Commonwealth to commit to action on plastics, share best practice, leverage funding and push for global action.

  The UK supports small projects in a number of countries.

  - Tearfund (£3m) Tearfund runs plastics projects in Haiti (£1m) and Pakistan (£2m), working with communities on waste collection.
  - WasteAid (£80k) Preventing plastics from reaching the ocean in Cameroon.

  WasteAid had two grants under UK Aid Direct's Small Charities Challenge Fund (SCCF) operating in Kenya and Gambia, both programmes ended in November 2020 and June 2021 respectively.

US

Awareness raising campaigns related to MPL

National level

- EPA Resource Conservation and Recovery Act Voluntary Programs

  National Recycling Strategy –The draft National Recycling Strategy was published in fall 2020 and identifies strategic objectives and actions needed to create a stronger, more resilient, and cost-effective U.S. municipal solid waste recycling system. Recycling has been a critical component of the Environmental Protection Agency's (EPA) decades-long efforts to implement the Resource Conservation and Recovery Act (RCRA) and its more recent efforts to pursue a Sustainable Materials Management (SMM) approach, which aims to reduce the environmental impacts of materials across their lifecycle. Building on the National Framework for Advancing the U.S. Recycling System and EPA's long history of providing data, tools, information and other resources to support recycling in the United States. The strategy aligns with and supports implementation of the National Recycling Goal - to increase the recycling rate to 50 percent by 2030.

  WasteWise – EPA works with businesses, governments, and nonprofit organizations to promote the use and reuse of materials more productively over their entire life cycles. Partners demonstrate how they reduce waste, practice environmental stewardship and incorporate sustainable materials management into their business model, including their waste-handling processes. Benefits of joining WasteWise include reduced costs for purchasing and waste disposal and opportunities to receive WasteWise Awards for outstanding achievements, public recognition in WasteWise publications, outreach and educational materials, and one-on-one technical assistance via the WasteWise Helpline.

Achievement

- WasteWise

  Some of the 2019 EPA WasteWise national award winners include: CenturyLink Field, Rooms to Go, Ravitz Family Markets, Price Rite Supermarkets, Inc., City of Chesapeake Garage, Chumash Casino Resort, Central Michigan University, and Beth Israel Deaconess Medical Center. These organizations were recognized for their leadership in waste prevention and diversion. The 2019 national award winners reported preventing and diverting over 69,500 tons of waste in 2018 that would otherwise have been disposed in landfills or incinerated.

  In 2019, Waste Wise celebrated its 25th anniversary. WasteWise currently has more than 500 partners representing more than 50 sectors. Since the beginning of the program, WasteWise participants have prevented more than 247 million tons of waste from going to the landfill.

- Clean Water Act

  Trash Free Waters Voluntary Work in the US – Since 2013, the Trash Free Waters Program has participated in or provided technical or financial assistance on over 200 domestic, place-based activities in all 10 EPA Regions – across 33 states, DC and 3 territories."

  - More than 200 partner programs engaged nationally,
  - Twenty trash capture projects,
  - Sixty source reduction projects,
  - Forty data collection projects,
  - More than thirty projects funded by various EPA competitive grant programs – such as Urban Waters Small Grants and Environmental Justice Small Grants.
  - Twenty-five of the twenty-eight National Estuary Programs have developed Trash Free Waters Projects.

- Two of the EPA Geographic Programs have recently announced funding recipients for their new Trash Free Waters grants. In order to allow participants additional time to provide data and information due to the Coronavirus pandemic, EPA decided to postpone the 2020 WasteWise award announcement. In November 2021, EPA will recognize achievements of WasteWise participants for both 2020 and 2021.

■ Marine Debris Act

Development of public awareness materials and social media platforms for sharing information to increase awareness and drive behavioral change to reduce the amount and impacts of marine debris.

International / Regional level

■ NOAA International Marine Debris Conference (IMDC) Series

Since 1984, NOAA has hosted six International Marine Debris Conferences that engage a wide array of key stakeholders and the public to discuss all aspects of the marine debris issue. The last event, the 6IMDC, was held in March 2018 in California and included over 700 attendees from 54 countries. This conference was action, solution, and change-oriented and included sharing of lessons learned and best practices to reduce and prevent marine debris and its impacts; promoting international co-learning; exchanging innovative ideas such as market incentives and communication strategies; and sharing the latest research initiatives, methods, and results. NOAA is assisting the Republic of Korea and the UN Environment Programme in planning the 7IMDC, to be held in September 2022 in Busan, ROK.

EU

Education system for encouraging public awareness on MPL issues

■ Network of European Blue Schools

The Network of European Blue Schools is an initiative of EU4Ocean, the European Ocean Coalition that connects diverse organisations, projects and people contributing to ocean literacy and the sustainable management of the ocean. EU4Ocean is the place where new ideas and joint actions come to life to make a bigger change. Supported by the European Commission, this bottom-up inclusive initiative aims at uniting the voices of Europeans to make the ocean a concern of everyone.

This Network of European Blue Schools aims to inspire teacher, school director or staff of education services, to challenge their students, from kindergarten, primary, lower and upper secondary, technical or vocational schools, to develop a “Find the blue” project that links them to the ocean or the sea. By successfully completing the project and sharing its results, schools will receive the European Blue School label.

Awareness raising campaigns related to MPL

National level

■ Awareness raising campaign

The European Commission launched an awareness raising campaign to highlight the role of citizens in combatting plastic pollution and marine litter. Together with the United Nations Environment Programme and other partners, the Commission coordinates a global network of aquariums to raise public awareness about plastic pollution. Leading by example, the European Commission has also phased out all single-use plastic cups in water fountains and vending machines in all its buildings and at all meetings.

The EU not only finances dedicated projects focused on awareness-raising but also requires dissemination and communication activities in almost all EU-funded projects against litter

URL:

https://ec.europa.eu/info/news/single-use-plastics-are-you-readytochange-2018-jun-05_en

https://europa.eu/rapid/press-release_IP-18-6203_en.htm

International Organisations and NGOs

ADB

Awareness raising

- The project (TA-0044) will design all knowledge products to raise awareness of and facilitate cooperation on marine pollution as well as provide recommendations and guides to transition to a circular economy (eliminate, innovate and circulate). This will incorporate country-specific recommendations through case studies and country focused workshops as well as regional recommendations including enabling environments and opportunities through regional cooperation.
- Knowledge desk research and stakeholder consultations identified the following thematic knowledge priorities in line with country demands and areas where the project can add value:
  - Digital Technology Solutions (through knowledge products and knowledge sharing and capacity building events)
  - Finance Solutions (through knowledge products and knowledge sharing and capacity building events)
  - Green Jobs and Business Development (through knowledge sharing and capacity building events)
  - Policy Advisory (through knowledge sharing and capacity building events) on: Circular Economy; Recycling and Waste Management; and Fiscal Reform.
- The project will lead in the development and implementation of the following events:
  - Healthy Oceans Technology and Innovation Forum: 6-28 January 2022.
  - TA Implementation Workshop, 30-31 March 2022
  - Circular Economy Webinar Series
  - Blue Finance Training, 18-20 November 2020
  - Regional workshop/conference on circular plastics business opportunities
  - Regional Circular Economy Finance Conference
  - Workshops and stakeholder consultations for policy development in Thailand
  - Viet Nam Forum for Circular Plastics Packaging
  - Community workshops for Viet Nam and Indonesia pilot projects
  - Stakeholder Workshops and Capacity Development Activities for City Action Plan Preparation for Indonesia, Philippines, Thailand, and Viet Nam
  - Partner knowledge sharing webinar series
  - Green/Blue Finance Forums and Roundtables
- The project will also lead in the development of the following knowledge products in Indonesia:
  - Technical report on market analysis of plastics value chain
  - Report on the role of small and medium enterprises (SMEs) in the transition to a circular economy as input to the National Circular Economy Strategy and Roadmap in Indonesia
  - White paper on Extended Producer Responsibility (EPR) implementation and recommendations for enabling policy actions
  - Case studies on circular economy financing models for Indonesian cities/regencies
  - Green jobs toolkit on how to create 'decent' (safe, fair, dignified) jobs in inclusive circular economy investments
  - Study on the business case, issues, and solutions for reducing plastic pollution and promoting circular and green business practices, goods, and services in the tourism sector
  - Report on the business case and recommendations for governance measures, instruments and fiscal incentives that promote gender and socially inclusive integrated solid waste management investments and action-led responses for a circular economy
  - Assessment methodology for green jobs in the waste sector and circular plastics economy
  - Successful business models for a circular plastics economy in Indonesia and Southeast Asia
  - Baseline analysis report of the circular economy at city level
  - Awareness raising and training materials

ERIA

Education system creation

- Capacity development through workshops and webinars, in collaboration with various stakeholders, including government, international organization, research institute, and private sector.

  Related link:

  https://rkcmpd-eria.org/updates/The-Way-Forward-for-a-Stronger-Regional-and-International-Cooperation-on-Marine-Plastic-Debris

  https://rkcmpd-eria.org/updates/EPR-for-Plastics-in-Viet-Nam:-Challenges-and-Opportunities

  https://rkcmpd-eria.org/updates/ASEAN-on-Point-Public-Forum:-How-Policies-can-Support-the-Private-Sector-in-Combatting-Marine-Plastic-Debris

Awareness raising

- Social media accounts

  The Centre owns several social media accounts (Twitter, Facebook, Instagram, and LinkedIn), where facts about marine plastic issues and updates of our activities are actively shared. Social media tools are strategically employed on one hand to increase its online presence and on the other to direct some of the follower to the website.

  Social media accounts:

  - Twitter: @rkcmpd_eria
  - Facebook: facebook.com/rkcmpd.eria
  - Instagram: @rkcmpd_eria
  - LinkedIn: linkedin.com/showcase/regional-knowledge-centre-for-marine-plastic-debris

Additionally, many of the online events organized by the RKC-MPD have its objective to educate citizens on marine plastic pollution and raise awareness of the issue. RKC-MPD's Youth Engagement program (2022 onward) in particular has also its main goal to educate young generation of the ASEAN+3 region to learn science-driven information about MPD. The RKC-MPD has been collaborating with UNDP and ASEAN-Japan Centre for the Youth Engagement program.

Related link:

https://www.eria.org/events/rainy-days-high-season-for-marine-plastic-litter/

IAEA

Awareness raising

- NUTEC Plastics Roundtables; Partnership with GPAP, ASEAN, UNEP, ESCAP, etc.

  The IAEA brings added value to existing partnerships addressing the global plastic challenge by providing accurate assessment of the abundance and impact of marine plastics, to inform environmental policy making and management decisions; and by offering novel plastic recycling options through radiation technologies to complement conventional methods. The IAEA has stepped up its engagement with relevant partners to increase the awareness of the unique advantages of nuclear technologies for addressing plastic pollution and to seek partnerships to accelerate the transition to a circular plastic economy. To this end, the IAEA is holding a series of virtual Roundtables on "Atoms Contributing to the Search for Solutions to Plastic Pollution". The first was held for the Asia and Pacific Region on 18 May 2021. The second for North, Central and South America and the Caribbean on 26 August 2021, the third for African Region on 2 September 2021, and the fourth for European Region on 7 October 2021 were also held successfully. Presentations and discussions by experts and representatives from IAEA Member States focused on innovative nuclear solutions to plastic pollution.

  The IAEA is actively seeking and establishing partnerships and formal collaborative agreements with relevant organizations for synergies, cooperative and convergent work, particularly under the implementation framework of the Osaka Blue Ocean Vision, the ASEAN Bangkok Declaration on Combating Marine Debris in ASEAN Region, the Regional Seas Conventions and Programmes through IOC-UNESCO, UNEP and other organizations. IAEA already became an affiliate member of the Global Plastic Action Partnership (GPAP).

UNEP

Awareness raising

- One Planet Consumer Information programme developed recommendations to improve communication on plastic packaging through labels, claims, and standards.

  The report: Can I Recycle This? A Global Mapping and Assessment of Standards, Labels and Claims on Plastic Packaging

  https://www.oneplanetnetwork.org/programmes/consumer-information-scp/consumer-information-and-plastic-packaging

  - Provides a global mapping of standards and on-package labels and claims related to plastic packaging,
  - Identifies opportunities to use standards, labels and claims to tackle plastic pollution more effectively.

  The programmes issued 3 Key Message Papers for Businesses, Governments and Standard-setters and labelling organizations to effectively implement the recommendations of the report, complemented by a set of five case studies.

  https://www.oneplanetnetwork.org/knowledge-centre/resources/key-messages-businesses

  https://www.oneplanetnetwork.org/knowledge-centre/resources/key-messages-governments

  https://www.oneplanetnetwork.org/knowledge-centre/resources/key-messages-standard-setters-and-labelling-organisations

  https://www.oneplanetnetwork.org/programmes/consumer-information-scp/consumer-information-and-plastic-packaging

UNDP

Education system creation

The OIC-supported Duke University's global Plastics Policy Database is widely accessible for governments and academic researchers to track and evaluate various municipal, state level, national level, regional level, and global level plastics policies and regulations, and replicate viable

Awareness raising

- UNDP has supported over 100 awareness raising initiatives across communities and countries. These initiatives emphasize awareness on littering, impacts and measures to reduce waste; linkages between plastics and other socio-environmental issues including climate change, marine pollution and land degradation. For instance, in Ukraine, SGP supported NGO "Green sail", to create awareness on how improved waste management could contribute to mitigating climate change. Some of these include public awareness to combat climate through raising public awareness on waste management and promotion of recycling of household plastic waste.

- Through ocean innovator adelphi's stakeholders consultations, they are raising awareness on the importance of Extended Producer Responsibility and public-private engagement in reducing plastic wastes and promoting circular economy. OneSea is using beach cleanups as an awareness raising effort and encouraging public engagement through the creation of a Peace Treaty with the Ocean to be presented to Parliament. Forum for the Future is engaged in industry-wide awareness raising in the fashion industry about the issues of microplastics shedding. Duke Plastics Policy Database has held webinars on their database with wide attendance. The Comoros Country Office has been informing communities on the socio-economic opportunities on plastics waste management. All have made workshops for awareness raising for key stakeholders, including among customs officers.

  UNDP in Indonesia has supported activities on raising public awareness on marine debris reduction by the Secretariat yielded commendable results. In the period of January-June 2022, the secretariat held 2 TV Dialogues, 16 webinars (3,200 participants in total), 2 side events in regional/global conferences. Moreover, social media platforms (Instagram, Facebook and Twitter) helped disseminate waste management and marine debris management awareness to a larger audience. Faith Waste Charity Movement (Gerakan Sedekah Sampah Indonesia/GRADASI) is a major milestone for public awareness. The Secretariat has successfully engaged religious communities (mulisms, Christians, hindus, budhists) as a result of the intense communications conducted. Through the successful pilot activities, the Secretariat attracted USD 103,068 from Danone-AQUA to optimize the program until 2025. The second milestone of the Secretariat is the exchange of Indonesia's lessons learnt with the global community at the United Nations Ocean Conference 2022

UNEP

Awareness raising

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https://www.oneplanetnetwork.org/knowledge-centre/resources/key-messages-standard-setters-and-labelling-organisations

https://www.oneplanetnetwork.org/programmes/consumer-information-scp/consumer-information-and-plastic-packaging

UNIDO

Awareness raising

All UNIDO projects promoting plastic circular economy have awareness raising components.

WEF GPAP

Awareness raising

- Leveraging the World Economic Forum's event and media platform, as well as its multistakeholder approach, GPAP can raise awareness among governments, businesses and other decision-makers about plastic pollution and key solutions areas.

  All stakeholders in the plastics ecosystem have a role to play in shifting mindsets and behaviours. GPAP's multistakeholder approach means we can raise awareness among governments, businesses and other decision-makers about proven behaviour change methods. We take a holistic approach to behaviour change, focusing on actions both upstream to prevent waste and downstream to better manage it. The country-level partnerships in Indonesia and Ghana both convened Behaviour Change Task Forces in 2021 and 2022. In Indonesia, a Behaviour Change Roadmap to radically reduce plastic pollution in Indonesia was also launched.

  Encouraging behaviour that directly contribute to preventing plastic waste requires efforts from actors across the entire plastic value chain: individuals, families, communities, businesses, innovators and the public sector that all directly contribute to preventing plastic waste and improving how waste is managed and recovered. The Behaviour Change Roadmap lays out the goals and practical next steps to guide the Behaviour Change Task Force in turning strategy into results.

3.6. Monitoring & Scientific Research on Marine Plastic Litter

Twenty-six countries encouraged monitoring and scientific research on plastic flows and ocean surface microplastics, and 18 countries are engaged in international / regional level platforms to encourage monitoring / scientific research on plastic flows and ocean surface microplastics. Twelve and nine countries see immediate positive trend from encouraging scientific research and participation in international/regional level scientific research activities, respectively.

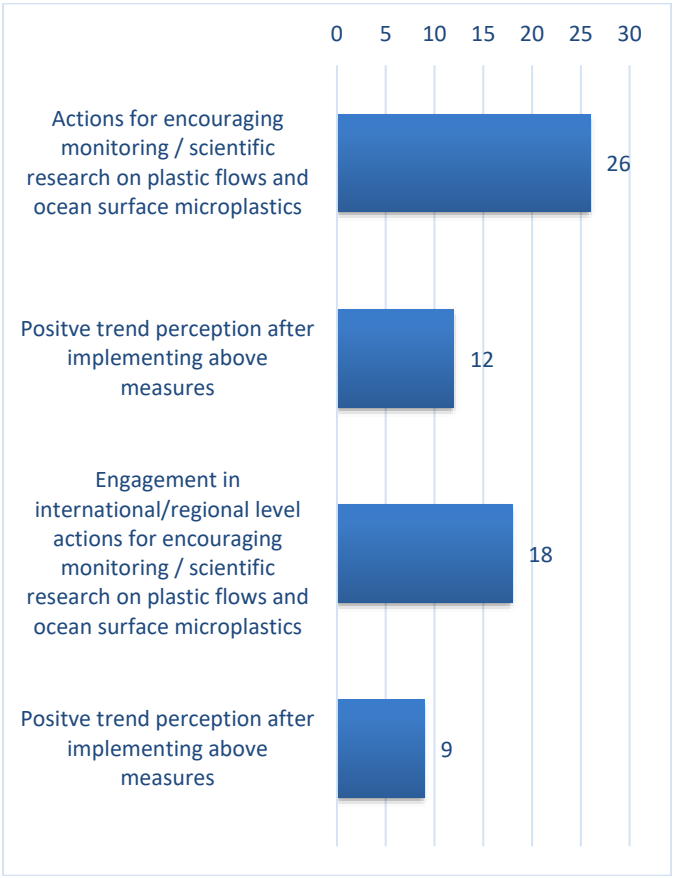

Figure 10: Countries - Monitoring & Scientific Research on Marine Plastic Litter*

*Number of countries responded YES among 33 responses

Countries

Australia

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- National Waste Reports

  Australia's National Waste Reports describe Australia's national performance on waste and recycling. The Reports presents data and commentary on waste generation, recovery and fate for all waste streams and various material categories. It also analyses the information by jurisdiction and on a per capita basis. More information is available at:

  https://www.dcceew.gov.au/environment/protection/waste/national-waste-reports/2020

- Other research

  Australia is conducting a range of research to better understand marine debris, including marine plastic pollution. Recent CSIRO research indicates that 75% of Australian beach pollution is plastic. This research will assist in setting baselines for marine debris and plastic pollution, allowing this to be tracked over time. For details on CSIRO marine debris research, see https://www.csiro.au/en/Research/OandA/Areas/Marine-resources-and-industries/Marine-debris.

- National Environment Science Program

  The Australian Government has invested AU$149 million in the second phase of the National Environment Science Program to establish four new multidisciplinary and applied research hubs, including a Marine and Coastal Hub and a Sustainable Communities and Waste Hub. The program provides evidence for the design, delivery and on-ground outcomes for environmental programs, helps decision-makers build resilience and supports positive environmental, social and economic outcomes, including in relation to plastic flows and ocean surface microplastics.

- National plastics pollution monitoring protocol and database

  Australia's 2021 National Plastics Plan includes a commitment for the Australian Government to partner with organisations to establish a national monitoring protocol and database for plastics pollution (currently in the early stages of development).

- CSIRO Marine Debris Research

Achievements

Positive improvement - CSIRO research has recently demonstrated a 29% average decrease in coastal litter at the national scale, highlighting specific local government actions, policies and activities that are associated with the reduction.

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Regional engagement

  The Australian Government has committed AU$16 million has been committed to the Pacific Ocean Litter Project which supports the Secretariat of the Pacific Regional Environment Program (SPREP) with the implementation of the Pacific Regional Action Plan: Marine Litter 2018-2025. This Project is working to assist Pacific island countries refuse, reduce and find alternatives to single-use plastics, such as plastic bags, cutlery, food containers and drink bottles, which make up much of the plastic waste in inshore waters and beaches in the Pacific region.

  The Australian Government is a supporting member of the Australia New Zealand Pacific Plastic Pact (ANZPAC). ANZPAC is the first Plastics Pact in the Oceania region, second regional Pact and the 11th Plastics Pact under the Ellen MacArthur Foundation's global Plastics Pact Network. Members aim to achieve four targets: eliminating unnecessary and problematic plastic packaging, ensuring 100% of plastic pacakging is reusable, recyclable or compostable by 2025, increasing plastic packaging collected and effectively recycled by 25%, and having an average of 25% recycled content in packaging

  See above input on Australia-Indonesia Plastics Innovation Hub.

- International engagement and commitments

  Australia worked with other countries to launch negotiations for a new treaty to end plastic pollution, including in the marine environment, at the March 2022 United Nations Environment Assembly (UNEA 5.2). Australia will actively engage in negotiations to finalise the draft treaty by the end of 2024.

  The final resolution adopted at UNEA 5.2 directs the intergovernmental negotiating committe to develop an international legally binding instrument on plastic pollution including in the marine environment, that includes provisions to:

  - facilitate access to technology, capacity building and scientific and technical cooperation.
  - promote research and development of sustainable, affordable, innovative and cost-efficient approaches

  Australia is a member of the Commonwealth Clean Ocean Alliance, the United Nations Environment Programme Clean Seas Campaign, the G20 Marine Litter Action Plan and G20 Implementation Framework for Actions on Marine Plastic Litter, and the High-Level Panel for a Sustainable Ocean Economy. Under the UN Clean Seas Campaign, Australia has made several public commitments, including packaging targets.

Achievements

Not any particular trend yet - It is too early to determine a trend due to severe disruptions from COVID-19. Australia has worked with SPREP to develop a new delivery model with monitoring and evaluation to commence in 2022.

Brazil

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Waste Flow Diagram

  The Ministry of the Environment is implementing a rapid assessment methodology for mapping the flows of macro plastic waste in seven coastal municipalities (Porto Seguro/BA, Maragogi/AL, São José da Coroa Grande/PE, Barreiros/PE, Rio Formoso/PE, Sirinhaém/PE and Tamandaré/PE) aiming to promote the improvement and efficiency of municipal solid waste management systems considering the stages of collection, sorting, transportation and disposal of waste.

  Called Waste Flow Diagram (WFD) and developed through a collaboration between GIZ, the University of Leeds, Eawag and Wasteaware, this methodology enables to quantify the sources of plastic leakage into the environment from the municipal solid waste management system and determine the eventual fate of this uncontrolled waste, like the amount of plastic which is transferred through storm drain systems and ends up being carried to the ocean.

  The results of the study will make it possible to identify the high-priority sources of plastic pollution and to quantify the effectiveness of applied interventions, avoiding plastic waste leakage into the environment.

Achievements

Positive improvement

Canada

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Canada's zero plastic waste agenda
- Canada's Plastics Science Agenda
- Investments in science
- Pilot physical flow account for plastic material (https://www150.statcan.gc.ca/n1/daily-quotidien/220323/dq220323f-eng.htm)

  Canada supports, conducts and shares scientific research that informs evidence-based decision making, spurs innovation and helps to track progress.

  Canada's Plastics Science Agenda (CaPSA), released in July 2019, identifies knowledge gaps across the lifecycle of plastics and provides a framework to inform future research and monitoring efforts and investments.

  In October 2020, Canada published the Science Assessment of Plastic Pollution – a review of available scientific information on the potential impacts of plastic pollution on the environment and human health.

  Canada, as per the Canada-wide Action Plan on Zero Plastic Waste, will continue to support research, including R&D and innovations, along the plastics value chain to inform decision-making and identify opportunities for improved circularity in the economy. Canada will also develop and maintain national data on plastic use in the economy and their management; develop guidance for Canada-wide monitoring to detect and assess plastic pollution using harmonized approaches; and facilitate collaborative networks to share knowledge.

  In March 2022, Statistics Canada released the pilot physical flow account for plastic material, which is a new environmental-economic account that estimates the flow of plastic through the Canadian economy. The account features breakdowns by product category, resin type, and province or territory, and it is a time series covering reference years 2012 to 2018.

  The Canadian Government has invested more than $10 million in robust science to address priority research gaps. Plastics Science for a Cleaner Future, the Increasing Knowledge on Plastics Pollution Initiative and the Northern Contaminants Program are recent investments in research to better understand the impacts of plastic pollution and support solutions across the value chain.

Achievements

Positive improvement - The value of investments and number of science projects has increased since 2018.

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Canada's comprehensive zero plastic waste agenda
- Participation in international science

  Canada participates in international and regional initiatives to advance effective science via method development, monitoring and information exchange. Some examples of participation are provided here.

  Canada is active in the Arctic Council efforts tackling plastic pollution. Canada is working with international partners to coordinate research and monitoring on litter and microplastics through the Arctic Monitoring and Assessment Programme (AMAP). This includes producing internationally supported reviews and recommendations for monitoring plastics in 11 environmental compartments to assess fate and transport of plastic pollution. Canada also works on the Conservation of Arctic Flora and Fauna (CAFF) international team to assess what bird species in the Arctic can be used to track and assess plastic pollution, including seabirds and shorebirds as focal groups that feed specifically at the waters surface in many regions of the world. Through the Protection of the Arctic Marine Environment (PAME) working group, Canada participated in the desktop study on marine litter, including microplastics.

  In addition, through the North Pacific Marine Science Organization (PICES), Canada is working with partners in the North Pacific on assessing potential indicators for the North Pacific region through a rubric exercise. This work will review the need for bioindicators to track plastic in marine food webs over time, identify baselines and targets, and determine if mitigation targets will be met in the future.

Achievement

Positive improvement - The value of investments and engagement has increased since 2018.

Chile

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

Chile has sponsored various scientific activities (international workshops, scientific projects, etc.) to develop research on marine debris and its impacts on the environment, fishing, aquaculture and tourism.

China

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- National Marine Litter and Microplastics Monitoring Programme

  The routine monitoring of China's national marine litter has been under way since 2007, covering beach, seawater, and seafloor litters. The routine monitoring of floating microplastics in coastal waters has been going on since 2016. The monitoring results have been published in Bulletin of Marine Ecological and Environmental Status of China every year.

- Scientific Research on Monitoring and Ecological Effect Assessment of Marine Microplastics

  Since 2015 accounted for 17% of the world's total. The National Key Research & Development Program-Marine Microplastics Monitoring and Ecological Environmental Effect Assessment Technology Research was launched by the Ministry of Science and Technology in 2016, focusing on marine microplastics pollution monitoring, source analysis, ecological effects, and source control.

- Action Plan on Plastic Pollution Control (2021-2025)

  Monitoring and investigation of marine plastic waste and microplastics are conducted. We organize and carry out research on pollution mechanism, monitoring and control technology of plastic wastes and microplastics in rivers, lakes and seas.

- Marine Ecological Environment Protection Plan (2021-2025)

  Recent years has seen enhanced cooperation and exchanges such as joint survey of marine debris by China and Japan, joint survey and research on the ecological environment of the Yellow Sea by China and South Korea, and China-ASEAN typical marine ecosystems and biodiversity protection. We will further consolidate and expand the international circle of friends who are willing to jointly protect the blue sea and silver beaches.

Achievement

Positive improvement

Colombia

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Scientific articles - Published scientific articles: Garcés-Ordóñez, O., Espinosa L., Costa Muniz M., Salles-Pereira L., Meigikos dos Anjos R., 2021. Abundance, distribution, and characteristics of microplastics in coastal surface waters of the Colombian Caribbean and Pacific. Environmental Science and Pollution Research. Accepted for publication.

- Garcés-Ordóñez, O., Espinosa L., Pereira R., Issa B., Meigikos R., 2020. Plastic litter pollution along sandy beaches in the Caribbean and Pacific coast of Colombia. Environmental Pollution, 267: 115495. https://doi.org/10.1016/j.envpol.2020.115495

- Garcés-Ordóñez, O., Bayona-Arenas, M., 2019. Impacts of marine debris pollution on the mangrove ecosystem of the Ciénaga Grande de Santa Marta, Colombian Caribbean. Revista Ciencias Marinas y Costeras, 11(2), 145-165. https://doi.org/10.15359/revmar.11-2.8.

- Garcés-Ordóñez, O., Castillo-Olaya V., Granados-Briceño A., Blandón L., Espinosa L., 2019. Marine debris and microplastics contamination in mangrove soils of the Ciénaga Grande de Santa Marta, Colombian Caribbean. Boletín de Contaminación Marina, 145: 455-462. https://doi.org/10.1016/j.marpolbul.2019.06.058

- Garcés-Ordóñez, O., Espinosa L, Pereira R., Muniz M., 2020. Impact of tourist activity on marine debris pollution on the beaches of Santa Marta, Colombian Caribbean. Boletín de Contaminación Marina, 160: 111558. https://doi.org/10.1016/j.marpolbul.2020.111558

- Garcés-Ordóñez, O., Mejía-Esquivia K., Sierra-Labastidas T., Patiño A., Blandón L., Espinosa-Díaz L., 2020. Prevalence of microplastic contamination in the digestive tract of fish from the Cispatá mangrove ecosystem, Colombian Caribbean. Marine Pollution Bulletin, 154: 111085. https://doi.org/10.1016/j.marpolbul.2020.111085

- Marine debris contamination in the mangroves of Providencia and Santa Catalina islands after hurricane IOTA in the Colombian Caribbean.

Achievement

Positive improvement

Costa Rica

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Monitoring and research actions in plans and actions that are developed

  In the different initiatives in execution, the monitoring and surveillance axes are visualized, as well as the scientific research work that provides a greater knowledge of the residues, types and origin, as well as the conditions of affectation of marine ecosystems.

Achievements

- Positive improvement - Both the Marine Residues Plan and the parallel actions that are implemented in the country have thematic axes related to the monitoring and execution of actions and research on marine residues. Taking into account that the diagnostic phase of the projects is in execution, perhaps in the near future we will be generating data and relevant information on the types of waste, needs, actions for the solution and actors linked and beneficiaries of good sea conditions.

Fiji

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

Engaging with academic institutions and academics.

Achievements

Positive improvement

France

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- The Ministry of Ecology partners up with national agencies and research centers (such as ADEME and CEDRE) to lead scientific research on marine litter
- Actions on rivers and waste and rain water
  - Quantify the litter carried though rivers;
  - Quantify litter carried through waste water;
  - Identify the areas where litter accumulates in rivers;
  - Identify the actions/tools to prevent or recover litter in rivers and waste and rain water and experiment them;
  - Evaluate the discharge of litter by rain water and elaborate strategies for action;
  - Define a common methodology to monitor riverine litter and microplastic pollution.
- Actions on the seashore and at sea
  - Monitor litter and microplastics on beach sediments and at sea and in biota (fulmars and turtles);
  - Determine the areas where litter accumulates at sea and on the coastline and the possibility of actions;
  - Identify and put in place actions to improve litter collection in ports in link with the European directive.
- Research
  - Federate and give better voice to the scientific community;
  - Launch studies on plastic alternatives that do not impact health and the environment;
  - Launch studies on the recycling of plastics that have been at sea.
- The citizen science platform on marine litter allow research centers to dispose of local datas thanks to the categorization made by collectors.

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Participation in regional sea conventions for knowledge and best practices sharing and implementation of action plans;
- Participation in international fora, negotiations and guidelines: JRC, UNEP,, IMO, UN World Ocean Assessment II, GESAMP, European Technical Group on Marine Litter, Basel convention, Barcelone Convention, etc;
- Organization of a workshop to identify the different methodologies to monitor riverine macroplastic pollution in the OSPAR area (regional sea convention);
- Promotion of international cooperation among European willing member states for the exchange of best practice and as an advocacy towards the European Commission to implement facilitating measures (“European Plastics Pact”).

Achievements

- The platform gathers 355 organizations, 600 events were recorded in 2021 via the platform, with the participation of 18,775 people. These events resulted in the collection of 883 m3 of waste, i.e. more than 65 tons of waste.
- About the inputs of rivers, a study (LEESU, 2021) indicated that the dynamic probabilistic approach would provide the most reliable results with estimates of flows from the Seine to the sea of between 100 and 200 t/year.
- About the inputs of wastewater, a study (CEREMA, 2020) estimated the flow of macro-waste discharged from wastewater treatment systems in the metropolitan area to be between 2,000 and 9,000 tons of dry matter per year.

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Participation in regional sea conventions for knowledge and best practices sharing and implementation of action plans;
- Participation in international fora, negotiations and guidelines: JRC, UNEP, IMO, UN World Ocean Assessment II, GESAMP, European Technical Group on Marine Litter, Basel convention, OSPAR convention, Barcelone Convention, etc;
- Organization of a workshop to identify the different methodologies to monitor riverine macroplastic pollution in the OSPAR area (regional sea convention);
- Promote international cooperation among European willing member states for the exchange of best practice and as an advocacy towards the European Commission to implement facilitating measures (“European Plastics Pact”).

Achievements

Positive improvement over the last two years

Germany

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Engaging with academic institutions and academics.
  - Meso litter on beaches
  - Floating litter (ship and airborne)
  - Remote sensing
  - Lost angling gear
  - Secondary microplastics in marine mammals
  - Microplastics in fish
  - Entanglement in sea bird breeding colonies

Achievements

Not any particular trend

Indonesia

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Beach litter monitoring (it has been conducted for 5 years)

  Beach Litter Monitoring has been doing for small areas in Indonesia (23 locations) twice a year

- Monitoring of microplastic (next)

  National Institution on Research has conducted research on Stranded Litter and microplastic

  Some universities have been doing research on MPL both macro and micro plastic

- Capacity improvement

  Capacity improvement for local government and universities

Achievement

- No particular change - There is no specific indicator to measure the actions. However some local governments and NGOs have been doing the monitoring.
- Many journals were found regarding MPL

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics Training

Italy

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

Marine Strategy Framework Directive Article 11 Monitoring Programmes

Beach litter

- Scope. Data collection on quantity, composition, trends and possible sources of marine litter present on beaches.
- Parameter. Number of objects per category on 100 m of beach.
- Method. Monitoring of transects represented by a strip of beach of 100 m. Counting and characterization of Items larger than 2.5 cm (longest side) including cigarette butts.
- Frequency. Twice a year
  - From 01 February to 30 April (Spring)
  - From 01 October to 31 December (Autumn).

Floating litter

- Scope. Data collection on quantity, composition, and territorial distribution of waste in the surface layer of the water column.
- Parameter. Numbers of items by category per square kilometre (km^2) in the surface layer of the water column.
- Method. A visual census monitoring with a dedicated observer within a defined strip along the entire path of the transect of a maximum of 5 m.
- Frequency.

  Coastal waters: six surveys a year, every two months.
  Offshore: three / five surveys per season for each transect.

Riverine inputs of litter entering the sea

- Scope. Data collection on floating litter entering the sea.
- Parameter. Within the same river, number of items (divided by category) / hour.
- In order to normalize the data with other rivers, the parameter becomes: number of items (divided by category) / hour / $meter^2$
- Method. Visual census of floating macro-litter larger than 2.5 cm to be carried out on at least half the width of the river (the observation strip) and from a height not exceeding 10 m.
- Frequency.

  Five monitors per season (20 monitors per year).

Seafloor litter

- Scope. Data collection on spatial distribution, type and quantity of litter in the seabed and the possible impact that it can cause to benthic organisms.
- Parameter.
- Number of items per category per km^2
- Spatial distribution of litter on the bottom.
- Number of individuals of each species affected by litter.
- Method.

- Hard bottom: using ROVs along transects of known length, georeferenced high-resolution image-data (photos / videos) will be acquired and analyzed.
- Soft bottom: MEDITS / SOLEMON samplings with trawl nets.
- Frequency.

Biennial for hard bottom.
Annual for soft bottom.

Microlitter

- Scope. Evaluate the abundance and composition of microlitter, in particular microplastics, present in the surface layer of the water column.
- Parameter. Number of micro particles per m^2 by shape and colour.
- Method. Use of a “manta net” (330 µm mesh) towed for 20 minutes along a linear path, with a speed between 1 and 2 knots.
- Frequency.
- Coastal waters: twice a year.
- Offshore: once a year.

Marine litter ingested by Caretta caretta

- Scope. Establish the quantity and composition of ingested marine litter on dead specimens of Caretta caretta analyzing the gastro intestinal contents.
- Parameter. F0% =% of turtles that have ingested litter on the total number of stranded specimens.
- (g) = amount of marine litter ingested in grams.
- Method. The specimens of Caretta caretta are subjected to necropsy. The analysis of litterin C. caretta is carried out in the laboratory immediately after the recovery of dead organism
- Frequency. Based on the findings of specimens stranded throughout the year.

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Marine Strategy Framework Directive

  The Directive requires from Member States detailed and coordinated input. In order to facilitate this work, Member States and the European Commission have set up an informal programme of coordination, the Common Implementation Strategy (CIS).

- UNEP-MAP Barcelona Convention

  Implementation of the Ecosystem Approach (EcAp) in the Mediterranean by the Contracting parties in the context of the Barcelona Convention for the Protection of the Marine Environment and the Coastal region of the Mediterranean and its Protocols.

- GESAMP Working Group on seabased sources of marine litter.

  The GESAMP WG 23 is headed by FAO and IMO and cosponsored by UNEP. The overall objective of WG 43 is to build a broader understanding of sea-based sources of marine litter, in particular from the shipping and fishing sectors, including the relative contribution of different sources, analysis of plastic use and management within both industries and the range and extent of impacts from sea-based sources of marine litter. The Working Group will also work to build a more comprehensive understanding of specific types of sea-based sources of marine litter, and to guide interventions on these sources based on identified priorities.

- IMO’s Marine Environment Protection Committee (MEPC) in 2021 adopted its Strategy to address marine plastic litter from ships, which sets out the ambitions to reduce marine plastic litter generated from, and retrieved by, fishing vessels; reduce shipping's contr ibution to marine plastic litter; and improve the effectiveness of port reception and facilities and treatment in reducing marine plastic litter.

Japan

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Harmonization of Microplastics Monitoring Methodologies in the Ocean

  Taking the lead on international harmonization of monitoring methods.“Guidelines for Harmonizing Ocean Surface Microplastic Monitoring Methods” (Published in 2019, revised in 2020)

  http://www.env.go.jp/en/water/marine_litter/guidelines/guidelines.pdf

- Investigation and estimation of domestically-generated amounts and routes, as well as an investigation into floating plastic

- Research on methods to evaluate the toxicity of marine plastic litter, including microplastics, on ecosystems

- Survey guidelines and case studies for marine plastics

  In order to understand the historical amount and composition of litter discharged from land to the ocean via rivers, survey guidelines and case studies were developed and shared for local governments and research institutes

- Survey on ecological impact on fish and shellfish that have ingested microplastics (implemented by the Fisheries Technology Research Institute in FY2021)

Achievements

- Positive improvement
- Numerical data

  Budget scale of technologies development and R&D

	FY2020
National budget	JPY 277 million

  (Reference)

  Meeting materials for expert conference on measures against articles that drift ashore

  http://www.env.go.jp/water/marine_litter/conf.html

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Data hub for monitoring data on floating micorplastics

  Taking the lead on international compilation of ocean surface microplastic monitoring data.

  Features of a new data sharing system (database) for ocean surface microplastics were discussed with international experts and related initiatives.

Achievement

Positive improvement

Mexico

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Participation in “GESAMP”

  The General Coordination of Ports and Merchant participates through the General Direction of Merchant Marine in the GESAMP Working Group to address marine plastic waste from ships.

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Marine Litter and Microplastics Working Group in LAC.

  Mexico is part of this working group whose objective is to establish a regional cooperation and coordination mechanism to address the issue of marine debris and microplastics, which generates the exchange of information on best practices and experiences, technology assessment, capacity building and institutional strengthening among other points.

- Academia efforts oriented to work with international groups to generating technical information and developing capabilities in marine plastic litter topics.

  UAM-A (Universidad Autónoma Metropolitana) is leading most of the efforts.

Achievements

Positive improvement

Myanmar

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- A study conducted by the Fridtjof Nansen research vessel

  A study conducted by the Fridtjof Nansen research vessel recently found that micro-plastic particles were widespread, with the highest numbers recorded in the Rakhine area in the shallowest stations. Microplastics were found in 21 out of the 22 Manta trawls of the Leg 3.4a and most of the items found were less than 5 mm in length.

  The survey found that Myanmar is 2nd most abundant microplastic less than 5mm among 12 countries next to Namibia and the most abundant countries in Bay of Bangle.

Achievements

Numerical data - Within 1sq km 1400 particles are found in Myanmar

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

The Ministry of Environment Japan supported Myanmar in training of monitoring methods for floating litter and floating microplastics training based on the 3rd Myanmar-Japan Policy Dialogue on Environmental issues.

Netherlands

Others

- The Netherlands is actively involved in OSPAR’s ICG Marine Litter (one of the co-convenors) and in the EU MSFD Technical Group on Marine litter. Within these groups common approaches are developed on monitoring, assessment and measures. In addition NL is active in the Arctic, supporting the development of the Marine Litter Action Plan under the wing of the Arctic Council/PAME working group and for example through the funding and lauch of a special capsule at the island of Texel, coordinated by Wageningen University & Research. The live position of this *'Plastic in a Bottle*' capsule can be tracked online and shows the route that plastic waste may travel once it enters the North Sea. In March 2021 the NL Arctic Ambassador gave a keynote speech on the importance of combatting marine litter e.g. by transitioning to a circular economy at the Arctic Council’s *International Symposium on Plastics in the Arctic and sub-Arctic Region*.

Norway

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- The National Monitoring Program for Microplastics was established in 2021

  The monitoring program measures levels and types of microplastic particles in Norwegian water bodies according to guidelines given by international expert groups such as GESAMP (The Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection) that provide advice to the UN and AMAP (Arctic Monitoring and Assessment Programme) a working group of the Arctic Council. Data will be made available through IECES (International Education and Credential Evaluation Services) Dome.

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

Norway is actively engaged in a number of relevant processes including cooperation at the european level on research and innovation – ERA and Horizon Europe, under UNEP, International Maritime Organization (IMO), the Basel Convention, the Global Partnership on Marine Litter (GPML), OSPAR, Nordic Council of Climate and Environment Ministers, and the working groups PAME and AMAP under the Arctic Council.

Oman

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Published papers entitled Shore litter along sandy beaches of the Gulf of Oman by (Claereboudt MR.,2004)
- Published paper entitled Fishing gear dominates marine litter in the Wetlands Reserve in Al Wusta Governorate, Oman (van Hoytema, et al.,2020)
- Conferences, webinars and other events hold by Sultan Qaboos university attended by experts from oversea to share information and methodologies to study marine litters and microplastics

Achievements

Positive improvement - A lot of papers targeting studying MPLs in Oman will be published later on by Sultan Qaboos University (SQU).

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Participating with UNEP to have standardized framework and guideline to reduce the plastic litters from the ocean

  Oman was participating to the UNEA member states discussions on marine litter and microplastics that come to an end in 2020. The meetings still continuous via online due to the current situation of COVID-19, next meeting will be in February 2022.

Peru

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Scientific research on plastic flows and ocean surface microplastics

  Some scientific papers have been published such as:

  - Report of microplastics in fish of importance for popular food in the Peruvian Amazon: IIAP, 2017. Fuente: CHOTA-MACUYAMA, W.; CHONG, J. 2017. Primer registro de ingestión de microplásticos por un pez de importancia comercial en la ciudad de Iquitos, Amazonía peruana. Instituto de Investigaciones de la Amazonía Peruana - IIAP. Folia Amazónica. Revista del Instituto de Investigaciones de la Amazonía Peruana.
  - Report of microplastics in 4 beaches: Chimbote, Huacho, Ventanilla and Pisco. IMARPE 2014-2015. Fuente: Purca S. & A. Henostroza. 2017. Presencia de microplásticos en cuatro playas arenosas de Perú. Revista peruana de biología 24(1): 101 – 106 (Abril 2017).
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Achievements

Positive improvement

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- We have the Peruvian Sea Institute (IMARPE)

  Peru participates in the voluntary nonprofit network REMARCO "Research Network on Marine-Coastal Stressors in Latin America and the Caribbean," which has the support of the International Atomic Energy Agency (IAEA), and which uses nuclear and isotopic techniques for peaceful use, to address the environmental problems of the marine-coastal ecosystems of Latin America and the Caribbean, thus contributing to the fulfillment of Sustainable Development Goal 14: Life Underwater. In March 2022, Peru became part of the Executive Committee of the Network, under the theme of contamination by microplastics.

- Currently, the Peruvian Sea Institute (IMARPE) is participating in the research project "Reducing the impacts of plastic waste in the Eastern Pacific Ocean (Ecuador-Peru-Chile)", with six universities in Chile, Ecuador, Peru and the United Kingdom, and which aims to reduce plastic dumping in the Eastern Pacific. Researchers from Peru and the United Kingdom co-lead the component related to "Understanding the impacts of microplastics on commercial fish species and products."

Achievements

Positive improvement

Republic of Korea

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- National Marine Litter Monitoring Program

  To understand the pollution level of marine litter in the seaside and elucidating the origin of it, MOF has been conducting National Marine Litter Monitoring program at 40 spots since 2008.

- Microplastic distribution monitoring research

  From 2021, MOF conducts microplastic monitoring research to evaluate the pollution level of microplastic in the marine environment. The research is carried out with 4 target subjects; sea surface, seaside, marine biota and marine sediment.

Achievements

Positive improvement

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Strengthening and Improvement for Marine Litter response in Indonesia

  "Strengthening and Improvement for Marine Litter response in Indonesia" project aims to enhance the marine litter monitoring capacity of Indonesia through a joint pilot marine litter monitoring conducted in Labuan Bajo, Indonesia. Through this project, MOF is also working with the Indonesian government to establish a guideline to properly conduct marine litter monitoring in Indonesia through.

Achievements

Positive improvement

Republic of Marshal Island

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- The Marshall Islands Marine Resources Authority commissioned a project to assess three key areas connecting ocean and human health:

  Evaluation of water quality in the Majuro Lagoon based on EPA data

  Assessment of human exposure to microplastics and dissolved contaminants through consumption of reef and pelagic food fishes.

  RMI EPA was very fortunate to have the results as well as being involved with this research project.

Samoa

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

Achievements

Not any particular trend - Monitoring including law enforcement ongoing. But more needs to be done. The implementation of Samoa's Ocean Strategy will see more attention given to scientific research on ocean and microplastics.

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

Achievement

Not any particular trend - Need stronger engagement to build capacity in monitoring and to undertake scientific research on plastic flows and ocean surface micro-plastics.

Saudi Arabia

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- National action plan for sustainable management of Marine Litter in the Red Sea coast of Kingdom of Saudi Arabia

  Actions F1 to F4 of the "National action plan for sustainable management of Marine Litter in the Red Sea coast of Kingdom of Saudi Arabia" sets the objectives to undertake research to determine the source, density, and composition of Marine Litter in the red sea region of Saudi Arabia. - In preparation stage.

Achievement

No particular change observed yet

Spain

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Marine Strategies monitoring programs and Monitoring programs on marine litter

  Use of indicators (stated before) to measure and monitor marine plastic litter and microplastics amongst other type of waste

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Barcelona Convention
- OSPAR Convention

Sri Lanka

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Establish marine microplastic laboratory with support of CEFAS UK
- Coastal litter monitoring programme initiated in selected locations covering all coastal district
- Marine Floating plastic monitoring programme was formulated and will be implemented shortly

- Project on

  Marine Litter and Microplastics: Promoting the Environmentally Sound Management of Plastic Wastes and Achieving the Prevention and Minimization of the Generation of Plastic Wastes is implemented.

  Under this project plastic flows will be calculated.

- Quite a number of research have been carried out by the Universities on plastics, micro plastics and marine microplastics

Achievements

Positive improvement - Researches are ongoing. Once they are completed we will be able to receive numerical data.

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Planning initiated for programme with support of CEFAs to monitor plastic litter using OSPAR protocol

Thailand

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Microplastic survey in marine and coastal ecosystem, and in marine organisms

  Survey microplastic contain in seawater, beach sediment and in marine organisms to set up baseline data for national level

Achievements

Positive improvement

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Collaboration with several countries to improve microplastic study and share data at international meeting, seminar.

  Collaboration with IOC/WestPac on microplastic study

Achievements

Positive improvement

Türkiye

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- Turkish National Integrated Marine Pollution Monitoring Program

  Türkiye is a party to the Barcelona Convention for the protection of the Mediterranean and the Bucharest Convention for the protection of the Black Sea. Marine monitoring activities carried out in the Mediterranean and Aegean Seas within the framework of the MEDPOL Program and in the Black Sea according to the Black Sea Pollution Monitoring (BSIMAP) Program criteria, consisted of a combination of many independent pilot-scale monitoring activities.

  The monitoring program (DEN-İZ) is carried out with the participation of various institutions and organizations and universities operating in the marine field in our country under the coordination of TUBITAK-MAM (Research Center). Marine monitoring data is reported to MEDPOL, the Black Sea Commission Secretariat, the EEA and national institutions and local authorities.

  Within the scope of marine monitoring programme of Türkiye's Integrated Marine Pollution Monitoring Programme; under the heading IMAP Marine Litter (Descriptor 10 / IMAP 22-23), microplastics and marine and coastal litter are monitored. Microplastics in seawater and sediment, macro-trash on the seabed, as well as digested litter (in the fish stomach) are monitored on a pilot scale.

- Marine Monitoring Guidelines, Marine Litter Monitoring Guideline

  In order to develop a standard approach in our marine monitoring and to harmonize the Integrated Monitoring and Assessment Program of the Mediterranean and its Coasts (IMAP), 12 monitoring guidelines were prepared within the Project of "Standardization of Marine Monitoring" between 2015-2016 and "Marine Litter Monitoring Guideline" was prepared in this project. The guidelines have been published both in Turkish and English and have ISBN number and as the first guidelines in line with the Marine Strategy Framework Directive (MSFD). These monitoring guidelines are prepared by taking into account the monitoring programmes of our national legislation, European Union Directives and Regional Conventions to which Türkiye is a part (Barcelona and Bucharest Conventions, IMAP). "National Marine Monitoring Strategy Document" was prepared also in this project which will support the development of national monitoring legislation.

Achievements

Positive improvement - new marine litter monitoring parameters/indicators have been added to the National Marine Monitoring Programme.

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- "Integrated Marine Pollution Monitoring Programme (IMPM)" in other words National Marine Monitoring Programme.

  The programme is complying with the the national legislation, Regional Marine Conventions (Bucharest and Barcelona Conventions), and EU directives (MSFD and WFD).

UK

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- The UK water industry has been working to reduce the amount of litter entering the environment from sewage and waste water systems through extensive investment measures to improve coastal sewage treatment works and collecting systems, including adding screening to and/or reducing volumes from overflows to limit polluting events. In addition, campaigns by water companies to educate the public and businesses on items and material that should not be disposed of in sewers, avoiding blockage and reducing items that might otherwise pass through sewers and treatment processes. Measures to address pollution from surface water runoff and drainage are also likely to reduce litter entering rivers and other water bodies.
- Current monitoring for the UK Marine Strategy
  - Seafloor litter bycatch data is recorded during fisheries surveys, providing a spatial coverage of benthic macro-litter.
  - Floating litter washed ashore is monitored by beach litter surveys for macroplastic, surveyed quarterly from around the UK mainland.
  - Floating industrial and user litter fragments are monitored from the stomach contents of stranded Fulmar seabirds. Most reported strandings are from the Greater North Sea region, with little data from the Celtic Seas.
  - An indicator for assessing the prevalence of microplastics in sediments is under development, with the expectation that sediment grain size can be included.
- Recent and ongoing research:
  - A fishing gear inventory for England, and knowledge on the economics and process of recycling end-of-life fishing gear to allow an informed assessment of the impacts of an Extended Producer Responsibility scheme.
  - Defining and evaluating the pathways of terrestrial litter to the marine environment - evidence review.
- Currently funded relevant UK government research includes:
  - Bio-Plastic-Risk - Investigation of Biodegradable plastics as an environmental pollutant in terrestrial and marine environments.
  - Tyre-Loss – Investigation into the prevalence and impact of tyre-wear particles in the marine environment.
  - MINIMISE - Current and future effects of microplastics on marine ecosystems.
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  - Bio-Plastic-Risk - Investigation of Biodegradable plastics as an environmental pollutant in terrestrial and marine environments.
  - Tyre-Loss – Investigation into the prevalence and impact of tyre-wear particles in the marine environment.
  - MINIMISE - Current and future effects of microplastics on marine ecosystems.

  In response to current national and global concerns in relation to the environmental impact of microplastics National Highways undertook a review of academic research to date to understand the potential sources of microplastics from highways and to try to understand the scale of the problem. Initial findings have indicated that roads are potentially a significant source of microplastics into the environment with Tyre Particulate Wear the principal source although road markings and litter were also identified.

  The Phase 1 report can be found here:

  https://s3.eu-west-2.amazonaws.com/assets.highwaysengland.co.uk/Knowledge+Compendium/Investigation+of+microplastics+from+brake+and+tyre+wear+in+road+runoff.pdf

  National Highways have commissioned further work and are working with the Environment Agency to look to quantify the nature of the problem through field investigations. This work will be done in partnership with the Environment Agency.

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- OSPAR (Convention for the Protection of the Marine Environment of the North-East Atlantic)

  The UK monitors surface litter in the Greater North Sea by recording the volume and type of plastics found in the stomachs of the Northern Fulmar seabird. This data is reported to OSPAR to contribute to the monitoring of surface litter in the North Atlantic Maritime area.

  Through the BPF, the UK has launched a newly designed Ocean Country Partnership Programme (OCPP). The OCPP aims to tackle marine pollution, support sustainable seafood practices and manage and protect marine biodiversity by helping developing countries partner with UK scientists, and support them to access our world-leading ocean science expertise.

US

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- NOAA Marine Debris Monitoring and Assessment Program

  NOAA implements its Marine Debris Monitoring and Assessment Program (MDMAP), a citizen science initiative that engages partner organizations and volunteers across the United States in completing shoreline marine debris surveys. Through regular monitoring, NOAA and its many partners systematically collect data to compile a record of the amount and types of debris in the environment, track the progress of existing marine debris prevention initiatives, and identify targets for future mitigation efforts.

- NOAA's Shoreline Monitoring Field Guide and Marine Debris Monitoring and Assessment Technical Memo provide shoreline and surface water monitoring techniques and considerations for monitoring other parts of the marine environment and are used as the basis for marine debris monitoring activities globally.

  Link to guide: https://marinedebris.noaa.gov/sites/default/files/publications-files/MDMAP_Shoreline_Survey_Guide_2021.pdf

- NOAA also maintains an MDMAP online database including data collected through shoreline marine debris surveys. All data is openly available for data analysis efforts, and it is intended that the data can be used to develop more effective prevention and mitigation strategies to prevent the impacts of marine debris.

  Link to database: https://mdmap.orr.noaa.gov/login

Achievement

Not any particular trend

Engagement in international/regional level actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

■ APEC Marine Debris Shoreline Monitoring Decision Framework

The Department of State and NOAA are leading a project in the APEC region to develop tool to assist in the shoreline monitoring of marine debris in the Asia Pacific Region. This project will develop a decision framework that helps non-technical audiences select the most appropriate shoreline marine debris monitoring protocol.

Others

■ Resource Conservation and Recovery Act (EPA) Voluntary Programs

- Facts and Figures Report

  EPA began collecting and reporting data on the generation and disposition of waste in the United States more than 30 years ago. EPA releases an annual report, Advancing Sustainable Materials Management: Facts and Figures, to provide information on Municipal Solid Waste (MSW) generation, recycling, composting, combustion with energy recovery and landfilling. The report analyzes MSW trends in generation and management, materials and products, and economic indicators affecting MSW. The most recent Facts and Figures report contains data through calendar year 2017.

- Recycling Economic Information (REI) Report

  This report provides national economic information on the impacts of recycling, namely jobs, wages, and taxes in order to increase the understanding of the economic implications of material reuse and recycling. The most recent report was published in 2016.

■ Department of Energy Plastics Innovation Challenge

The Plastics Innovations Challenge will focus resources from across the U.S. Department of Energy to create a comprehensive program to accelerate innovations that will dramatically reduce plastic waste in oceans and landfills and position the U.S as global leaders in advanced plastics recycling technologies and in the manufacture of new plastics that are recyclable by design. The Plastics Innovation Challenge will draw on both fundamental and applied research capabilities within National Labs, universities and industry. Using a coordinated suite of funding opportunities, critical partnerships, and other programs, the Plastics Innovation Challenge sets the following 5 goals for the United States to reach by 2030:

- Develop collection technologies to prevent plastics from entering waterways or facilitate its removal.
- Develop biological and chemical methods for deconstructing plastic wastes into useful chemicals.
- Develop technologies to upcycle waste chemical streams into higher value products, encouraging increased recycling.
- Develop new plastics that are recyclable by design and can be scaled for domestic manufacturability
- Support a domestic plastics upcycling supply chain by helping companies scale and deploy new technologies in domestic and global markets.

Achievements

■ Clean Water Act

- Waste Management and Inclusive Capacity Building-Trash Free Waters

  In US Federal fiscal years FY19-20, the Trash Free Waters program has verified 100 waterbodies cleaner from trash from efforts related to program activity.

- National Coastal Condition Assessment 2010 is a statistical survey of the condition of U.S. marine and Great Lakes coasts. The most recent report can be found here:

  https://www.epa.gov/sites/production/files/2016-01/documents/ncca_2010_report.pdf

- Scleractinian coral microplastic ingestion: Potential calcification effects, size limits, and retention. Research supported by the Environmental Protection Agency.

  https://www.ncbi.nlm.nih.gov/pubmed/30301077

■ Marine Debris Act

- Development of technical papers summarizing the state of the science on several marine debris-related topics.
- Development of Marine Debris Monitoring Shoreline Protocols and media for protocol training.
- Funding a number of research projects to examine the fate, transport, and impacts of marine debris in partnership with academic universities.

EU

Actions for encouraging monitoring / scientific research on plastic flows and ocean surface microplastics

- EU Research and Innovation

  Through the EU Research and Innovation Programmes Horizon 2020 (2014-2020) the European Union has funded a number of projects to prevent marine litter and reduce its impact as well as to increase its knowledge base and inform citizens, for example

  - CLAIM: https://www.claim-h2020project.eu/
  - GOJELLY: https://gojelly.eu/

  TOPIOS: https://cordis.europa.eu/project/rcn/207862/factsheet/en

  - SeaChange: http://www.seachangeproject.eu/
  - ResponSeable: https://www.responseable.eu/

  EUROqCHARM: https://cordis.europa.eu/project/id/101003805

  - SEALIVE, Bio-Plastics Europe, MAELSTROM, In-No-Plastic, and LABPLAS.

  In the new Research and Innovation Programme (2021-2027), Horizon Europe, specific area for research on seas, oceans and inland waters, and a dedicated Mission, are envisaged for strengthening knowledge and understanding in order to protect, restore and sustainably manage marine, inland and coastal ecosystems and prevent pollution, including marine litter. With its systemic approach, the Mission 'Restore our Ocean and Waters by 2030' will address ocean and waters as one and play a key role in achieving climate neutrality and restoring nature by reducing plastic litter at sea, nutrient losses and the use of chemical pesticides and by making the blue economy climate-neutral and circular with zero-net maritime emissions. In the Mission work programme 2022 there are specific topics supporting the fight against pollution through research and innovation, namely:

  - Actions to prevent, minimise and remediate chemical pollution, with a focus on the Mediterranean basin (indicative budget EUR 16 million);
  - Prevent and eliminate litter, plastics and micro-plastics: Innovative solutions for waste-free European rivers (indicative budget EUR 10 million)
  - Marine litter and pollution – Smart and low environmental impact fishing gears (indicative budget EUR 10 million)

  Moreover, through the European Maritime and Fisheries Fund (EMFF), the EU is financing projects to prevent and fight marine litter, supporting concrete methodologies and technologies for reducing the volume and harmfulness of sea-based sources of marine litter and for removing and/or recycling it in an environmentally sound and efficient way. These are, for example:

  - MarGnet: http://www.margnet.eu
  - AQUA-LIT: https://aqua-lit.eu/
  - NetTag: http://net-tag.eu
  - BLUENET: https://www.bluenetproject.eu/
  - OCEANETS: http://oceanets.eu/

Engagement in international/regional level actions for encouraging monitoring/scientific research on plastic flows and ocean surface microplastics

- Around the EU, the four Regional Sea Conventions (in Mediterranean, Northeast Atlantic, Baltic and the Black Sea) developed and implemented, with EU technical and financial support, plans against marine litter;
- G7 (in 2015) and G20 (in 2017) also adopted Action Plans against marine litter. Regional plans and initiatives against marine litter exist (Southeast and Northwest Pacific, East Asian Seas) or are under development (Persian Gulf, NE Pacific, Arctic) also outside the EU.
- The EU finances projects in its neighbourhood that provide technical assistance to stakeholders, and promotes regional cooperation (Mediterranean and Black Sea) and the Commission services are working on large projects that will contribute to marine litter reduction internationally, for example in Southeast Asia, the Pacific and South America (in the order of EUR800 million, for the period 2014-17).
- In May 2019, the EU played a central role to achieve international decision-making on trans-boundary movements of most plastic waste subject to the controls of the Basel Convention. The new rules (which will enter into force in 2021) will improve controls on exports and imports of plastic waste. Countries on the receiving end will be able to refuse foreign shipments of mixed and unsorted plastic waste. It is important to stress that the EU has stricter rules than the Basel Convention: this means that, from 2021, it will be prohibited for the EU to export plastic waste covered by the Basel Convention to countries outside the OECD. The EU is signatory of the Barcelona Convention for the Protection of the Marine environment and Coastal Region of the Mediterranean.
- The EU Member States are also required to have dedicated monitoring programmes in their marine strategies under the Marine Strategy Framework Directive (Directive 2008/56/EC) to cover marine litter, including plastics and micro plastics. This is further specified in Decision 2017/848/EU).

International Organisations and NGOs

ADB

Monitoring of country policy status related to MPL

The project will support the passing of national policies in Thailand for waste management, and city action plans to develop and/or strengthen local policies in Indonesia, Philippines, and Viet Nam.

ERIA

Monitoring of country policy status related to MPL

- **"Zero in on Plastics" interview series** with Dr. Reza Cordova from Research Centre for Oceanography, National Research and Innovation Agency, Indonesia.

  Related link:

  https://rkcmpd-eria.org/updates/Crossing-The-Border-Without-Passport:-Where-Our-Plastics-End-Up

- **Information sharing on the updated national framework to tackle marine plastic debris from each ASEAN+3 country** (ASEAN countries, China, Japan, Republic of Korea), including ministries & coordination mechanism, national laws & regulations, local regulations, and action plans & roadmaps.

  Related link:

  https://rkcmpd-eria.org/practices/National-Framework-to-Tackle-Marine-Plastic-Debris

Scientific research

- Establishment of ERIA's Experts Working Group on Marine Plastic Debris, with on-going workstreams including:
  - Analysis on the increase of plastic pollution caused by COVID-19 and policy recommendations for green recovery
  - Development of a dynamic and searchable catalogue of experts and expertise on pollution from marine plastics
  - Survey and piloting of the application of behavioural insights for plastic reduction.
- Scientific publications, as follows:
  - Regional Waste Management: Inter-municipal Cooperation and PPP
  - Applying EPR for plastic waste in Asian developing countries
  - Towards international agreement on marine plastic pollution: The role of the G20 (under review)
- Knowledge sharing with regards to "Life Cycle Assessment of Plastic", "Chemical Impacts of Plastics on the Marine Ecosystem", Leakage Estimation", and "Material Flow Analysis for Plastics" on its website.

  Related link:

  https://rkcmpd-eria.org/practices/Scientific-Knowledge/LCA

  https://rkcmpd-eria.org/practices/Scientific-Knowledge/chemical-impacts

  https://rkcmpd-eria.org/practices/Scientific-Knowledge/leakage-estimation

  https://rkcmpd-eria.org/practices/Scientific-Knowledge/material-flow-analysis

IAEA

Monitoring of plastic flows and ocean surface microplastic

- NUTEC Plastics Monitoring Network applying Isotopic tracers and nuclear imaging techniques

  Isotopic tracers and nuclear imaging techniques offer several advantages in assessing the impact and stress caused by plastic in the marine environment: i) they are analytically sensitive, allowing for more precise and therefore reliable projections; ii) cross contamination of samples is typically much less of an issue compared to working with organic or inorganic contaminants, which facilitates broad interlaboratory exchange; iii) they permit non-destructive analyses, which allow for experimental work on live organisms and iv) they provide an overview of the effects and movement of contaminants on and within the whole organism. This provides an important marker for the potential toxicity of plastics on living organisms and reveals in great detail the impacted organs and systems, which in turn allows the tracing of actual toxicological stress and possible propagation in food chains that can ultimately affect humans through our consumption of seafood.

  The first coordination meeting for a regional project in Asia and the Pacific was held on 30 – 31 March, 2022. The project aims to support capacity building in microplastics monitoring in Australia, Bangladesh, China, Indonesia, Iran, Iraq, Israel, Jordan, Japan, Kuwait, Lebanon, Malaysia, Pakistan, Palestine territories, Philippines, Qatar, Saudi Arabia, Sri Lanka, Syria, Thailand, United Arab Emirates and Viet Nam. During the project an overview of the national facilities available and the current engagement in microplastics monitoring nationally or with international collaboration will be compiled. Additionally, 7 national projects and 2 regional projects in Latin America and the Caribbean are also aimed at building capacity for microplastics monitoring in the region to support the development of policies, regulations, standards as well as Sustainable Development Goal 14, Life Below Water.

UNDP

Monitoring of plastic flows and ocean surface microplastic

- UNDP Ocean Innovation Challenge

  Forum for the Future is working on the reduction of ocean microplastics through collaboration with large textile milling industries in Southeast Asia to reduce/prevent microplastics from microfibre from entering waterways and the seas

Monitoring of country policy status related to MPL

- UNDP Ocean Innovation Challenge

  Duke University built and is continuously updating the Global Plastics Policy Database that includes oversight and collection of plastics policies. They have produced at the start of 2022 the Brief: Annual Trends in Plastics Policy and six country-specific case studies. This database is a key data source to the UNEP Global Marine Plastic Litter (GPML) Database.

  The Government of Indonesia has set a target of reducing up to 70% reduction of plastic litter entering the ocean by 2025, as stipulated in Presidential Regulation No. 83/2018, and a National Coordination Team of different ministries/agencies was established. The UNDP Support Facility for the secretariat to tackle marine plastic debris has contributed to increasing the capability of Ministries/agencies to synergize each of their roles stipulated within the National Action Plan on Marine Debris. Also, it has led to a systematic mechanism for reducing marine plastic litter, which includes a monitoring and evaluation system for tracking reduction achievements by relevant ministries/agencies, a sustainable mechanism for integrating marine debris data, and reporting activities.

Scientific research

- UNDP Ocean Innovation Challenge

  Duke University's research includes plastic policy effectiveness and the status of implementation of plastic policies in different countries and regions. Forum for the Future is conducting research on microplastic shedding at textile manufacturing stage.

Others

- UNDP Ocean Innovation Challenge

  Fortuna Cools – developing alternatives to polystyrene through creation of coconut husk cased insulation. - product design above.

UNEP

Monitoring of plastic flows and ocean surface microplastic

- UNEP-IUCN National Guidance for Plastic Pollution Hotspotting and Shaping Action

  The 'National Guidance for Plastic Pollution Hotspotting and Shaping Action' (hereafter referred to as 'the Guidance') aims to provide a methodology for countries to identify plastic leakage 'hotspots', find their impacts along the entire plastic value chain, and then prioritise effective actions to stop the leakage at each hotspot.

  The Guidance will help countries, regions, and cities to understand what kind of plastics are leaking into the environment, where they are leaking, and why the leakage happens. It supports users with a model workflow, including a set of tools and templates for data collection, analysis, diagnosis, planning and implementation.

  The Guidance takes a holistic approach, covering major types of plastic polymers and products, as well as their leakages and impacts along the full value chain.

  The Guidance is co-developed by the United Nations Environment Programme (UNEP), the International Union for Conservation of Nature (IUCN), and the Life Cycle Initiative. And it has been piloted in Vietnam, Thailand, South Africa, Kenya, Mozambique, Menorca (Spain), Cyprus and Tanzania.

  See https://plastichotspotting.lifecycleinitiative.org/

Monitoring of country policy status related to MPL

- UNEP's Sustainable Budgeting Approach for Blue Economy proposes an organizing framework for Member State policymakers to leverage existing public finance management (PFM) tools for measuring and improving the alignment of national/sub-national budget planning and design processes with domestic sustainable blue economy objectives, including MPL issues.
- UNEP's Blue Economy Model, building on our experience with Green Economy Models, aims to help countries understand the potential impacts of sustainable blue economy policy alignment on socio-economic outcomes using scenarios. The model also includes plastic pollution considerations.

Scientific research

The assessment "From pollution to solution" will be launched in August 2021 (UNEA Resolution 4/6 para 2b)

WEF GPAP

Monitoring of country policy status related to MPL

- All country-level partnerships conduct a detailed assessment of the current local plastics situation and estimate potential future plastic flows. Sector experts review the data and develop policy options to address the challenges raised. From these insights, the local multistakeholder platforms publish an evidence-based action roadmap towards the country's plastic pollution targets. Our partnerships have also contributed to national policies and legislation on circular economy, plastic waste management and extended producer responsibility schemes in Viet Nam, influenced national plastics management policy in Ghana and fostered agreement on targets in Indonesia.

3.7. Others/Cross-cutting Activities

Countries

Netherlands

- The Netherlands is actively involved in OSPAR's ICG Marine Litter (one of the co-convenors) and in the EU MSFD Technical Group on Marine litter. Within these groups common approaches are developed on monitoring, assessment and measures. In addition NL is active in the Arctic, supporting the development of the Marine Litter Action Plan under the wing of the Arctic Council/PAME working group and for example through the funding and launch of a special capsule at the island of Texel, coordinated by Wageningen University & Research. The live position of this 'Plastic in a Bottle' capsule can be tracked online and shows the route that plastic waste may travel once it enters the North Sea. In March 2021 the NL Arctic Ambassador gave a keynote speech on the importance of combatting marine litter e.g. by transitioning to a circular economy at the Arctic Council's International Symposium on Plastics in the Arctic and sub-Arctic Region.

4. Challenges

Improving a recycling system is a concern raised by 20 countries. Implementing proper waste management due to insufficient local capacity is a concern for 13 countries.

Data collection on general waste remains a challenge for 14 countries. Furthermore, data collection on marine plastics remains a significant challenge for several developed countries too, with 26 countries marking the issue.

Sixteen countries mentioned a lack of awareness among citizens, businesses, and local governments as a concern. The lack of financial incentives for waste treatment and technology development remains a concern for 15 countries. Sixteen countries mentioned project delays due to COVID-19 as a challenge.

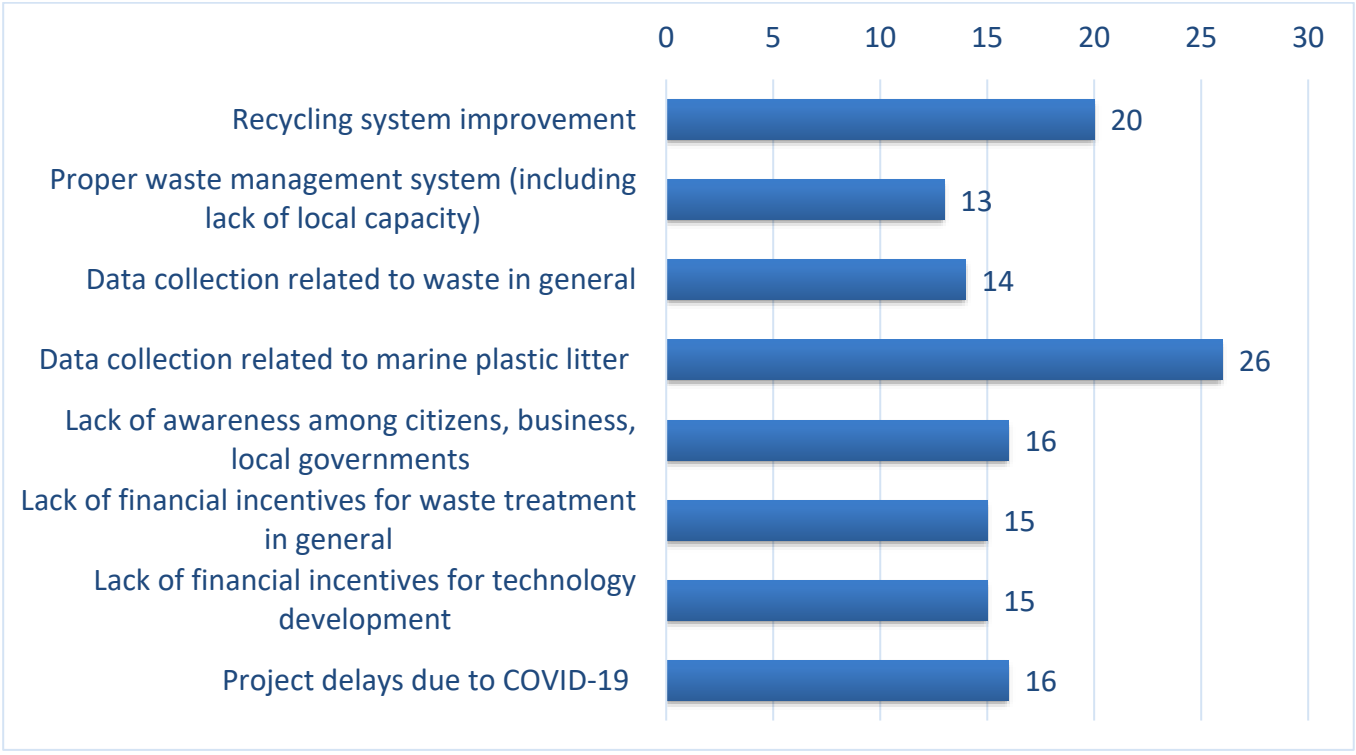

Figure 11: Countries – Challenges*

*Number of countries responded YES among 33 responses

Countries

Australia

- Australia would like to improve environmentally responsible trade in recycled plastics in the Indo-Pacific region, and work with its neighbours to find practical solutions that keep plastic out of the ocean and remove what is already there.

Costa Rica

- Environmental and waste education for sea users and citizens, production of substitutes for traditional plastic, logistics and recycling technology for marine residues.

France

- Lack of awareness among citizens, business, local governments: A progression in the awareness can be observed. According to the ADEME annual barometer "French and the environment" 2021, a third of French people rank waste among the two most worrying environmental problems, behind global warming and the degradation of biodiversity.
- Lack of financial incentives for technology development: Nuance: The strategy France 2030 plans to fund 300 million euros to the plastic recycling industry (action: strengthen investment in the recycling chain and incorporation of plastics).

Indonesia

- Systematic national campaign and education on MPL or reducing waste generation in general

Senegal

- Lack of alternative products
- Need to effectively run the EPR regime by:
  - Establishing specifications for the eco-organism, and
  - Setting up an eco-organism in accordance with the plastics law, and
- Need to address the integration of recycled plastic into new products manufactured by existing plants
- Need to channel investments into waste infrastructure

Thailand

- Many organizations do very similar actions on marine plastic litter, such as monitoring methods.
- Need guidance to transform scientific data into policy on marine litter management in proper way.

USA

- Recycling System Challenges
  - Education and Outreach - It can be difficult for consumers to understand what materials can be recycled, how materials can be recycled, and where to recycle different materials. This confusion can lead to placing recyclables in the trash or throwing trash in the recycling bin or cart. Therefore, it is important to enhance education and outreach to consumers on the value of recycling and how to recycle properly.
  - Infrastructure - Some recycling infrastructure does not match today's waste stream. Communication between the manufacturers of new materials and products and the recycling industry needs to be enhanced to prepare for and optimally manage the recycling of new materials.
  - Markets for Secondary Materials - Domestic markets for recycled materials need to be strengthened in the United States. There is also a need to better integrate recycled materials and end-of-life management into product and packaging designs. Improving communication among the different sectors of the recycling system is needed to strengthen the development of existing materials markets and to develop new innovative markets.
  - Measurement - Stakeholders across the recycling system agree that more consistent measurement methodologies are needed for measuring recycling system performance. These more standardized metrics can then be used to create effective goals and track progress.

International Organisations and NGOs

Data collection on marine plastic litter, data collection on general waste, and lack of awareness among various stakeholders are major focus area reported by organisations, garnering five responses.

Lack of financial investment for technology development and lack of financial support for waste management were mentioned by four organisations.

Project delays due to covid-19 and outdated recycling are reported by one organisation each. Difficulty in imposing proper waste management system was reported by two organisations.

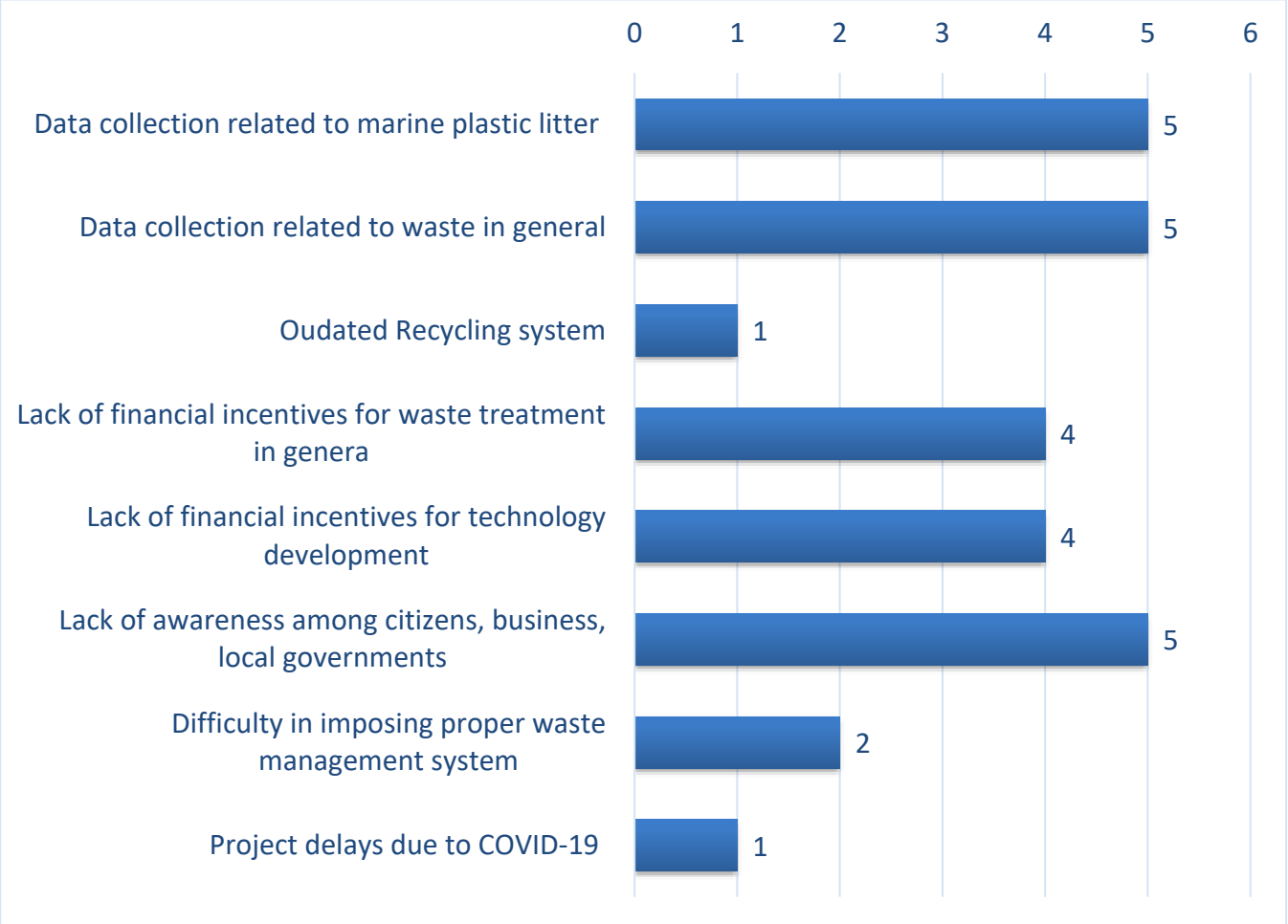

Figure 12: Organisations – Challenges*

*Number of organisations responded YES among 8 responses

ADB

- Project delays due to COVID-19

  ADB continued engagement with the project's (TA-0044) executing agencies (EAs) through online consultations during the pandemic, and on 30-31 March 2022, organized an online workshop to bring EAs together to kickstart implementation.

AREA

- Collecting data

  The Regional Knowledge Centre for Marine Plastic Debris (RKC-MPD) faced difficulties in collecting data related to marine plastic litter. Given the relatively wide target region to cover (ASEAN+3 Member States), and the lack of effective dissemination by many of those 13 target countries on their newly adopted national or local frameworks/action plans, ensuring information gathering in a timely manner has not been easy. Additionally, often times, related documents are not available online or they are only available in local languages. To address this challenge, the RKC-MPD hired ASEAN local consultants who can provide us with timely input which has improved our capacity to collect and disseminate accurate information. Internships are also open for marine plastic debris young researchers/students to contribute to the RKC-MPD activities.

- Lack of discussion on social, economic, and political dimensions of marine plastic issues

  The discussion on marine plastics in ASEAN region is mostly focused on technical and natural science findings. Whereas social, economic, and political dimensions (which intertwine with each other) can be the drivers of the MPD issue or impact it to a large extent. Taking these dimensions into consideration is fundamental to find sustainable solutions and to enrich the knowledge surrounding marine plastic problem, especially in ASEAN region.

IAEA

- Difficulty in data collection related to marine plastic litter

  There are difficulties for collecting marine plastic litter, especially in Developing States and when you are looking for smaller plastics (microplastic). Collection methods for nanoparticles of plastics are very limited. Through its Technical Cooperation Programme, the IAEA is contributing to help its Member States to overcome these issues through its global effort to train, equip and connect scientists. Moreover, more than the data collection related to marine plastic litter, it is not so clear how to proceed to collect data due to the lack of harmonized method. This a reason why the IAEA, with the help of partners, work on obtaining harmonized methods that can be widely shared with counterparts involved in monitoring of marine plastic pollution.

- Lack of financial incentives for technology development

  The IAEA is exploring concerted efforts, including synergy and partnership among various initiatives in mobilizing required resources, to ensure effective intervention in addressing both the mitigation and monitoring aspects of plastic pollution. Financial Partnership will be sought for complementary or supplementary support to relevant programmes undertaken by the IAEA, particularly for strengthening laboratories delivering NUTEC Plastics activities, as well as to Member States through the TC programmes, so that their national capabilities to tackle plastic pollution problems using nuclear technologies for monitoring and for recycling are significantly strengthened.

- Lack of awareness among citizen, business, local government

  Raising global awareness on the application of isotopic techniques for marine plastic monitoring and irradiation technologies in plastic irradiation via dedicated campaigns, such as webinars, Member State briefings, and liaising with decision makers, public, and scientific community in global, regional, or national fora. For example, the IAEA held a series of virtual Roundtables on "Atoms Contributing to the Search for Solutions to Plastic Pollution" in 2021, which had more than 1,600 participants from more than 180 countries in 4 Roundtables. The IAEA held a side event at the UN Ocean Conference 2022 to highlight actions addressing marine plastic pollution and organized in cooperation with the Circulate Initiative and the Incubation Network

  https://www.un.org/en/conferences/ocean2022

  Ocean Plastic | The Circulate Initiative

  Homepage - The Incubation Network

UNDP

- Difficulty in data collection related to marine plastic litter

  As part of SGP's Plastic Innovation Programme, UNDP will work with universities and research institutes to build the capacities of various stakeholders (including government officials, non-governmental organizations and civil society organizations to help design the right indicators and generate the needed data to track marine plastic litter.

  Within the OIC, a common challenge among the ocean innovators is the lack of clear information and accessible data on the importation of plastics, including single-use, packaging, and other plastics entering the waste stream. This has been partially overcome by working closely with the customs authorities, however there is a need for legal changes to regulate the flow of information between governmental bodies about the flow of plastics from governmental bodies.

- Lack of financial incentives for waste treatment in general

  UNDP through the Small Grants Programme has been providing communities and non-governmental organizations with financial and technical assistance to test and pilot a wide range of waste treatment methods. Many of these initiatives have been successful and UNDP is working with stakeholders to replicate or scale up these successful projects. For instance, in Vietnam, SGP supported Women's Union of Quy Nhon city (Quy Nhon WU) with USD34,000 and technical assistance to execute such a project. The project aimed at enhancing management capacity of local communities, developing a community-based model of waste collection, classification, and treatment in order to minimize plastic waste in coastal wards and communes of Quy Nhon Bay, Binh Dinh Province.

  The OIC has found that this is especially challenging in SIDS and LDCs because the waste accumulation is not large enough to attract private sector investment

- Lack of financial incentives for technology development

  For instance, UNDP supported the Government of Botswana to roll out a technology development project with a grant of USD19,316,300. This project tackles different aspects of waste management including providing the required knowledge for the formulation of waste-management policies and development of biogas technology. Through partnership between private sector and councils, the project is expected to advance innovation in waste management. It also aims to contribute to livelihoods and income generation for women, men and the youth.

- Lack of awareness among citizen, business, local government

  UNDP has supported over 200 national and community level awareness raising initiatives in plastics management. However, UNDP's recent portfolio and critical literature review exercises have shown that, though knowledge of an issue is an important step towards behavior change, information provision does not guarantee uptake of environmentally sound practices. Therefore, UNDP is employing new, multi-pronged strategies towards awareness raising and behavior change. These new strategies, contrary to run-of-the-mill information provision strategies, encompass consistent hands-on activities (such as monthly cleanups), frequent stakeholder engagements and dialogues and the provision of catalytic support for policy formulation and implementation. These new awareness raising strategies are being rolled out through SGP's Plastic Innovation Programme being piloted in 15 countries. We believe that such integrated strategies have a higher chance of improving awareness, shifting behaviors and reducing plastic demand, production, use and waste in the system.

  Each of the OIC Innovators is actively working to build awareness within their target audience of stakeholders. This is a requirement of OIC projects, and OIC provides communications mentoring to assist this process. The outreach includes webinars, trainings, awareness raising campaigns, development of awareness' raising materials, and other education efforts.

- Difficulty in imposing proper waste management

  UNDP is working towards developing a SIDS offer which will focus on building the capacity of islands in waste management. This will include strengthening SIDS' capacity to develop and enforce plastic and waste management policies (including bans, import restrictions, EPRs), infrastructure provision, source and brand monitoring, pollution hotspots, and data generation.

  The Zero waste offer of UNDP is specifically targeting support to the municipalities and local Governments so that the capacity of these entities is increased, in particular to solid waste management plans, to finance, implement and monitor them while ensuring awareness and engagement of the communities.

  Some of the challenges being addressed by the ocean innovators in SIDS is finding viable transportation solutions between islands and setting up waste recovery facilities such as in the Maldives and the Comoros. This also includes finding local expertise and importing equipment such as in the case of the Comoros. This only further proves that there is no single solution or approach to SIDS.

- Project delays due to COVID-19

  The early implementation of ocean innovations has been severely affected by the pandemic which resulted in delays. However, with the mentoring and adaptive management solutions provided by UNDP, the innovators were able to cope with the challenges and get back on track.

- Difficulty in data collection related to waste in general

- There are efforts to enhance the capacity of stakeholders in data generation for monitoring waste and effluent levels. For instance, through UNDP-UNEP IWEco partnership, science-practice interface was promoted in Jamaica via an SGP project – to help scientists to work closely with the community to gather data on pollutant levels in the Discovery Bay. Such initiatives help to generate data, promote citizen science and build the capacity of community stakeholders to support with data generation, problem analysis and progress monitoring. Such collaborative and capacity building initiatives will be continued through a new partnership, PROCARIBE+, where UNDP is aiming to building the capacity of at least 12 Caribbean states in data generation in support of marine spatial planning and blue economy advancement. This will include data on different pollutants within watersheds as well as best land and water resource management practices.

Within the OIC, a common challenge among the ocean innovators is the lack of clear information and accessible data on the importation of plastics, including single use, packaging, and other plastics entering the waste stream. This has been partially overcome by working closely with the customs authorities, however there is a need for legal changes to regulate the flow of information between governmental bodies about the flow of plastics from governmental bodies.

UNEP

- Difficulty in data collection related to marine plastic litter

  UNEP-IUCN National Guidance for Plastic Pollution Hotspotting and Shaping Action will help tackle this, as it will help countries build up quantitative baselines on plastic flow.

- Lack of financial incentives for waste treatment in general

  UNEP- Norwegian Retailers' Environment Fund partnership on Reducing Plastic Pollution through the Extended Producer Responsibility will help tackles this, as EPR is widely recognized as a useful instrument to cover the waste treatment costs.

- Lack of awareness among citizen, business, local government

  The New Plastics Economy Global Commitment, and the Global Tourism Plastics Initiative can help, although the main objective of these initiatives is broader: to unit stakeholders behind a common vision on circular economy for plastics, and to increase the transparency and credibility of actions through its annual progress reporting process. Both initiatives have been mentioned in the 3rd report.

- Difficulty in data collection related to waste in general

  UNEP-IUCN National Guidance for Plastic Pollution Hotspotting and Shaping Action will help tackle this, as it will help countries build up quantitative baselines on plastic flow.

- Lack of resource to scale up our actions to more regions and countries

WEF GPAP

- Difficulty in data collection related to waste in general

  Lack of quality data is a challenge we encounter in several countries. The set up of NPAP metrics taskforces has the goal of working together with experts to identify data gaps and discuss ways to improve the data collection.

- Lack of financial incentives for waste treatment in general

  Solving the plastic waste problem requires a significant redirection of funds towards reuse and refill; substitution and reduction; as well as collection, sorting and recycling. At GPAP, we're proactively building interest in such investment. We have engaged partners through a task force focused on financing plastic waste and pollution solutions. In the past year, our achievements include:

  - Launching a Toolkit for Investment "Unlocking the plastics circular economy" that demonstrates, through a series of case studies, how capital from a variety of sources is enabling the recovery and recycling of plastic waste; Examples from Indonesia, Belize and other countries are included in the toolkit.
  - Implementing actions through our NPAP Financing Task Forces, including the recent launch of Ghana's Financing Roadmap;
  - Seeing $197.5 million committed by our partners to initiatives targeting plastic waste and pollution reduction;

- Lack of financial incentives for technology development

  GPAP in Indonesia successfully supported the cooperation between the Financing Taskforce and the Innovation Taskforce, thus facilitating the encounter between innovative entrepreneurs and investors and financing institutions. Through a project showcase, the Indonesia partnership connected innovators with potential funders and they released a behaviour change roadmap.

  Furthermore, the organization by GPAP of several "Innovation challenges" at national or regional level stimulate interest, knowledge exchange and increase opportunities of funding for valuable initiatives, opening up avenues to scale up promising pilot initiatives.

- Lack of awareness among citizen, business, local government

  GPAP supports local approaches to transform behaviour. Our partnerships have supported a national scheme for plastic waste reduction in Viet Nam, training courses in marine plastic pollution, innovation challenges, and a national campaign for the reduction of single use plastics in Indonesia. In Mexico, GPAP is supporting an initiative (Refill Revolution) with Algramo and WWF Mexico to scale in-store refill solutions, with a focus on supply chain optimization, policy frameworks and consumer behavior change. More generally across our partnerships, by bringing experts together to collaborate, our Behaviour Change Task Forces are pioneering innovative campaigns and initiatives around the world.

5. Best Practices

5.1. National Level

Countries

Australia

- In 2020, the Australian Government introduced landmark legislation to ensure Australia takes responsibility for its waste. The RAWR Act provides a national framework to manage waste and recycling across Australia, now and into the future. It implements the export ban on waste plastic, paper, glass, and tyres that was agreed by the Commonwealth, state, and territory governments in March 2020.
- The legislation and its supporting Rules also allows for voluntary, co-regulatory and mandatory product stewardship, to encourage companies to take greater responsibility for the waste they generate, including through better product design and the increased recovery and reuse of waste materials. It also requires the Minister to publish a Product Stewardship Priority List each year of products that might warrant regulation if other approaches are not suitably adopted.

Brazil

- National Cleanup Form
- Voluntary cleanup actions mobilize and make local population conscious of marine litter and the need to rethink our patterns of production, consumption, and waste management. Aware of the importance of these collective actions and their potential to generate a positive wave to inspire people and mobilize groups of volunteers to take care of the environment in which they live, the Ministry of the Environment developed the National Cleanup Form. This instrument allows counting the different types of waste collected during cleanup efforts, encouraging sorting and classification, and facilitating recycling and the proper disposal of solid waste. The form allows to organize and report data from cleanup action to the Cleanups Results Dashboard, better described below.

  https://www.gov.br/mma/pt-br/assuntos/agendaambientalurbana/combate-ao-lixo-no-mar/formularionacionaldemutiraodelimpezaingles_vdefeso.pdf
- Cleanups Results Dashboard
- In order to systematize and disseminate data from cleanup efforts on beaches, rivers and mangroves in the country, the Ministry of the Environment makes available on its website and on MMA SuperApp the Cleanups Results Dashboard. This platform brings information generated by cleanup actions promoted not only by MMA, but also by other groups and organizations that contribute to the implementation of Combating Marine Litter and Cleaner Rivers programs. The dashboard shows graphs and statistics on the subject, evaluating and monitoring types of materials found on the coast of the country to guide public policies on preventive measures and adequate disposal of solid waste.

  https://app.powerbi.com/view?r=eyJrIjoiYTQ5ZDA5NGItNGQ1OS00N2Y5LTgwMGQtOTdjYzBiNDYxOTMzIiwidCI6IjM5NTdhMzY3LTZkMzgtNGMxZi1hNGJhLTMzZThmM2M1NTBlNyJ9

Canada

Examples:

- Guidance for Selecting Alternatives to Single-use Plastics as defined in the Single-use Plastics Prohibition Regulations

  URL: https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/reduce-plastic-waste/single-use-plastic-guidance.html
- Best management practices for disposal bans, levies and incentives for end-of-life plastics

  URL: https://ccme.ca/en/res/finaldisposalbansbmps-ensecured.pdf
- Solid waste management for northern and remote communities.

  URL: https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/municipal-solid/environment/northern-remote-communities.html
- Canada-wide Action Plan for Extended Producer Responsibility.

  URL: https://ccme.ca/en/res/cap-epr_e.pdf
- Canadian Code of Conduct for Responsible Fishing Operations.

  URL: http://www.dfo-mpo.gc.ca/fisheries-peches/policies-politiques/cccrfo-cccppr-eng.html
- How Do We Use and Recover More Compostable Packaging? - Canadian Perspectives.

  URL:

  http://www.nzwc.ca/Documents/HowDoWeUseRecoverMoreCompostablePackaging.pdf
- Online Design Portfolio Celebrating Canadian design for waste prevention and systems-thinking.

  URL:
  http://www.nzwc.ca/Documents/DesignPortfolio2018.pdf

- 10,000 Changes public awareness campaign and education.

  URL: https://10000changes.ca/en/

- Plastic Wise public awareness campaign.

  URL: https://ocean.org/plastic-wise/

- Waste Literacy Education

  URL: https://rochmanlab.com/waste-literacy-education/

- Anthropocene Education Program

  URL: https://theanthropocene.org/education/

- Plastic Action Centre (resource directory)

Chile

- Chile has developed several initiatives to involve stakeholder participation and information exchange regarding marine debris. Some of these activities are:
  - Communication campaigns.
  - Workshops and webinars on marine debris, with a strong focus on prevention.
  - National Beach Cleaning Program. Through this program, marine litter are removed from the sea, rivers, beaches, and lakes.

  In addition, the Ministry of the Environment has created a website dedicated to promoting information and knowledge about marine debris and microplastics (https://residuosmarinos.mma.gob.cl). This website is used by civil society to obtain technical reports and data.

Costa Rica

- Have designed and in process of execution of the National Marine Residues Plan 2021-2030

Fiji

- To address waste management issues in Fiji, the government through Parliament passed a number of Amendment to the Acts and Regulations to help reduce/minimize the waste generated in Fiji.
- Legal Frameworks have been put in place for the import, local manufacture, distribution and sale of plastics with thickness of less than 50 microns. The initiative has greatly improved the control of plastics locally and the environment as a whole.
- The ban on polystyrene (Styrofoam) products are specific to food packaging products including take-away food containers, cups and plates. This has also been carried out successfully through vigorous enforcement and spot checks resulting in businesses having introduced alternative food packaging products nationwide.
- The 7R Policy by the Ministry of Environment support Government's commitments towards a Circular Economy, and internalizing the concept into the enforcement of the Environment Management Act 2005 and its subsequent Regulations. The Clean Environment Policy focuses on maintaining a cleaner environment through anti-litter campaigns in partnership with stakeholders.

France

- The prohibition of single-use plastic items (which are most found in the marine environment) is a good way to develop alternatives and to provide citizens with a safer choice of products and develop new habits of consumption. It is also very coherent with a better use of resources and the implementation of a circular economy.
- A citizen science platform is very useful to give a clear idea of all the clean-ups that occur and of the quantity (and qualification) of litter collected. Such a platform is a way to share the good guidelines to conduct clean-ups (to preserve biodiversity and the nesting of birds, etc.) and to communicate on this issue and on actions and link the population who wants to get involved to the NGOs already in place.
- The Ministry is developing the national charter "Beaches without plastic waste". Coastal municipalities are invited to sign this charter in order to implement 15 concrete actions of awareness raising, clean-up and prevention of marine litter on their beaches. It is useful to shed a light on good practices, improve communication between municipalities and realize an annual evaluation of the actions.
- The extended producer responsibility schemes allows to finance the collection and recycling of certain waste. They can be particularly relevant when certain wastes are most found whose collection can be difficult to put in place (for instance: cigarette buds).
- The 2020 legislation against waste and for a circular economy creates a re-use observatory that will be responsible for assessing the relevance of reuse solutions from an environmental and economic point of view, for defining the national trajectory aiming at increasing the share of reused packaging on the market in relation to single-use packaging. It will also be in charge of supporting, in coordination with eco-organizations, experiments and the deployment of the resources needed to achieve the objectives defined in the terms of reference.

Italy

- With Directive of January 16, 2020, the Minister has ordered that the prevention and fight against marine pollution pursuant to law no. 979 of 1982 is aimed not only at hydrocarbon pollution but also at the containment of plastic, both in protected marine areas and in areas in front of river mouths. So the Castalia ships, specialized in the prevention and removing hydrocarbon pollution,

  So the Castalia ships, specialized in the prevention and removing hydrocarbon pollution, are supporting the Ministry of the are supporting the Ministry of the Ecological Transition in the experimental project . For Ecological Transition in the experimental project . For this activity, the Ministry is also supported by Corepla, the National Consortium for the this activity, the Ministry is also supported by Corepla, the National Consortium for the collection, recycling and recovery of plastic packaging, for an experimental project for the collection, recycling and recovery of plastic packaging, for an experimental project for the recycling of plasrecycling of plastic material recovered from the sea fleet.tic material recovered from the sea fleet.

Japan

- Japan enacted the Act on Promotion of Resource Circulation for Plastics in April 2022.

Nepal

- Ban on Plastics Bags less than 40 micron thickness

Netherlands

- National Plastic pact with citizens, companies, cities and countries

  Plastic Pact NL: https://www.plasticpact.nl/

- Collaboration projects, for instance green deals.

  URL: https://www.kimointernational.org/news/new-report-green-deals-marine-litter-is-decreasing/

Norway

- Norway has an environmental tax on plastic bottles and drinking cans. Bottles and cans get a lower tax depending on the return percentage. This gives the industry a good reason to establish return systems for bottles. The plastic bottles are subject to a deposit fee, which the consumers get back when they return the bottles. Around 90 % of plastic bottles are returned in Norway today.
- Norway has targets for recycling of plastic waste in line with EUs Waste Framework Directive and other relevant EU legislation. We have introduced measures to reach these targets.
- In 2021 a new action plan for climate- and environmentally friendly Public Procurement was launched. The plan includes measures to avoid undesirable chemical additives in plastics and prescribes the waste hierarchy as a guiding principle for procurement (e.g. strive to avoid unnecessary products, measures to reduce consumption, demand products for re-use and/or more recycled material in products).
- Knowledge hub on beach clean ups and sea-based sources through the national centre against marine litter (Marfo).
- Long experience with preventive and clean-up measures on marine litter from fisheries and aquaculture, and the Directorate of Fisheries' new action plan against marine litter from commercial and recreational fisheries and aquaculture.

Peru

- MINAM has been promoting various instruments for the efficient use of materials and solid waste management, among which are the Clean Production Agreements on solid waste, which aim to introduce economic activities a set of actions that go beyond compliance with current legislation, in order to achieve the prevention, minimization and recovery of solid waste. Likewise, it promotes the efficiency and recovery of materials.In this sense, there are currently 7 agreements signed between the Ministry of the Environment, the Ministry of Production and different companies (productive, extractive or service activities), with goals related to plastics:
  - Sistema Coca Cola Perú (Coca Cola and Arca Continental Lindley),
  - Unión de Cervecerías Peruanas Backus y Johnston SA,
  - Koplast industrial SAC,
  - Peruana de Moldeados SAC (Pamolsa),
  - Natura Cosméticos SA,
  - Cencosud Retail, and
  - Embotelladora San Miguel del Sur SA.

  Five of these companies have managed to achieve 100% of their goals, and have the recognition given by the Ministry of the Environment.
- On February 17, 2020, the Roadmap towards a Circular Economy in the Industry Sector was approved, which incorporates actions to promote circularity in the plastic industry and the implementation of Law No. 30884.
- In 2016, the Law of Comprehensive Solid Waste Management (LGIRS) was approved by Legislative Decree No. 1278, which introduces, among other principles, the recovery of solid waste, as well as the extended producer responsibility (REP) through the "Special Regime for prioritized goods wastes management"
- In this sense, the Ministry of the Environment promoted two regulations: Supreme Decree No. 009-2019-MINAM which approved the Special Regime for Electronic and Electrical Waste Management (2019); and Supreme Decree No. 024-2021-MINAM, which approve the Special Regime for end of life tires Management (2021). Currently, a diagnostic for packaging and containers is being elaborated with the financing of international cooperation, in order to propose an EPR scheme for this kind of wastes.
- From 2018 to 2021, MINAM implemented the "Model Eco-efficient Public Institutions Initiative" – EcoIP. In this framework, the capacities of 103 state administration entities were strengthened for the implementation of eco-efficiency measures and measures for compliance of the provisions of Law No. 30884. 89 public institutions carried out/participated in training on responsible consumption of plastic, 83 disseminated communication material about this matter and 62 developed a directive or guideline that encourages the reduction of plastic.

- The Ministry of Foreign Trade and Tourism (MINCETUR), during 2021, trained 387 tourism service providers in regulations regarding the reduction of single-use plastic, in areas such as the Huascarán National Park , Tingo María National Park, Pómac Forest Historical Sanctuary, in the Pacaya-Samiria National Reserve and in the regions of Junín, Pasco, Puno and the Machu Picchu Pueblo district of the Cusco region.
- Development and adoption of Peruvian technical standards through the exercise of the Secretariat of the Regulatory Technical Subcommittee (SCTN) of Eco-efficiency of the National Institute of Quality (INACAL) in charge of the General Directorate of Environmental Quality of MINAM. To date, 09 Peruvian technical standards have been developed related to plastics packaging and the environment, biodegradability, among others:
- MINAM developed the platform: "Registry of manufacturers, importers and distributors of regulated goods in Law No. 30884 - "REGIPLAST", being available through the link https://app.minam.gob.pe/regiplast/ so that manufacturers, importers and distributors of single-use plastic goods can register and make the corresponding annual report.

Samoa

- Key interventions target improvements in four key areas, strengthening of the policy, regulatory and institutional framework for the sustainable management of solid waste; effective management of waste collection contracts; implementation of waste minimization strategies and sustainable infrastructure for managing solid waste and At present, Samoa has approved its Integrated Solid Waste Management Strategy 2019 - 2023 which integrates sound management of chemicals and hazardous waste as part of overall waste management strategies. The Waste Management Act 2010 and plastic ban (plastic shopping bags, plastic straws and plastic packing bags) Regulations 2018 are now in force. Waste audits are conducted at village level and as part of national clean up campaigns. Ongoing monitoring for plastic ban which includes only plastic shopping bags, plastic straws and plastic packing bags.

Senegal

- Organization of seizure operations in supermarkets, gas stations, supermarkets, production plants, markets, stores, etc.
- Training and awareness-raising activities
- Use of alternative products;

Singapore

Comprehensive waste management system:

- Having a comprehensive and integrated solid waste management and collection system helps to minimise waste at source, reuse and recycle waste, and regulate waste collection and disposal so that waste will not be washed into the marine environment. With a National Recycling Programme and regulations, recycling bins and a collection system are provided for all residents.
- The Zero Waste Masterplan and the Singapore Green Plan 2030 will guide Singapore's efforts towards becoming a Zero Waste Nation.

  URL: https://towardszerowaste.sg/zero-waste-masterplan/ and https://greenplan.gov.sg/
- Prevention of littering, illegal dumping, release of waste into the ocean:
- Singapore has a routine cleaning regime put in place for all inland waterways to trap and remove land-based litter and flotsam. Damming up of tidal rivers to form reservoirs as source of water supply has also minimised litter from flowing out into the sea. Singapore also has a strict anti-littering enforcement regime aimed at deterring littering.

Spain

- Monitoring (macrolitter and microplastics) on beaches, floating litter, seabed litter, and also biota (target species differ in each marine region: in Spanish water: marine turtles + other options such as fish or mussels in study). Also citizen science protocol may be of interest.
- Implementation of a non-special fee cost recovery system for waste collection from vessels in national ports (implemented since 2011).
- Fishing for litter initiatives. These are expected to be harmonised into a national umbrella, but by the moment there are relevant individual initiatives (some of them private) with good coverage in terms of number of ports and experience, that could be shared.
- Some other initiatives can be checked on these catalogues

  https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/fichas-bpec-i-web_def_tcm30-525010.pdf

  https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/iicbpec_tcm30-534185.pdf

Sri Lanka

- National Action Plan Developed and implemented in collaboration with all relevant stakeholders.

Thailand

- Promotion on apply circular Economy in several sectors; food and beverage packaging design.
- Public-Private-People Participation on plastic waste

Türkiye

- Deniz Temiz Association/TURMEPA's public awareness campaigns & clean-up activities. (Deniz Temiz Association/TURMEPA is a NGO founded for the protection of the seas from pollution)

UAE

- Launching the Circle Coalition, a federal public-private partnership established to develop a circular economy model to combat plastic and packaging waste pollution.

UK

- Through our 25 Year Environment Plan the UK is committed to leading efforts to protect the marine environment. To tackle marine pollution, we will pursue a sustainable, international and transboundary approach that prioritises reducing global reliance on plastics, increases economically viable recycling processes, and promotes maritime practices that prevent harmful matter entering the seas. Our Resources and Waste Strategy for England is framed by natural capital thinking and guided by two overarching objectives:
  - To maximise the value of resource use; and
  - To minimise waste and its impact on the environment.

  This Strategy complements and helps deliver other government strategies which relate to the environment and include our ambitions to double resource productivity and eliminate avoidable waste by 2050. As well as the 25 Year Plan, they include: the Clean Growth Strategy, the Industrial Strategy, and the Litter Strategy. It also responds to the recommendations of the 2017 Government Office for Science Report, From Waste to Resource Productivity. This explores how we can treat waste as a valuable resource and this Strategy takes forward a number of its recommendations. We will deliver this through policies, actions and commitments which adhere to at least one of five strategic principles:
  - To provide the incentives, through regulatory or economic instruments if necessary and appropriate, and ensure the infrastructure, information and skills are in place, for people to do the right thing;
  - To prevent waste from occurring in the first place, and manage it better when it does;
  - To ensure that those who place on the market products which become waste to take greater responsibility for the costs of disposal – the 'polluter pays' principle;
  - To lead by example, both domestically and internationally; and
  - To not allow our ambition to be undermined by criminality.

  Our Strategy will contribute to the delivery of five strategic ambitions:
  - To work towards all plastic packaging placed on the market being recyclable, reusable or compostable by 2025;
  - To work towards eliminating food waste to landfill by 2030;
  - To eliminate avoidable plastic waste over the lifetime of the 25 Year Environment Plan;
  - To double resource productivity16 by 2050; and
  - To eliminate avoidable waste of all kinds by 2050.

US

- NOAA Reports and Technical Memos on Marine Debris: https://marinedebris.noaa.gov/reports-and-technical-memos#pub-term-39
- Microplastics Expert Workshop report: https://www.epa.gov/sites/production/files/2018-03/documents/microplastics_expert_workshop_report_final_12-4-17.pdf

EU

- Comprehensive approach to plastic production, use and disposal in the EU's Plastic Strategy as part of the EU's Circular Economy Action Plan
- Binding legislation for monitoring and assessing marine litter, for defining acceptable thresholds, setting targets and for taking measures to reduce quantities of litter and harm from litter
- Integrated approach covering all sources of plastic litter and microplastics
- Legislation on the reduction of the impact of certain plastic products on the environment, targeting the top 10 single-use plastic products most often found on Europe's beaches and seas as well as fishing gear containing plastics
- Legislation on port reception facilities to reduce the discharges from ship generated waste, including from fishing vessels
- Establishment of baselines for marine litter quantities in the coastal and marine environment
- Work towards the establishment of regulatory thresholds to prevent harm from litter in the marine coastal environment, including socio-economic aspects
- International and regional approach, coordination with neighbouring countries and third countries

International Organisations and NGOs

ERIA

- The RKC-MPD has its mandate to provide relevant data, information, and research results to its target countries (ASEAN+3 Member States) to support their policy formulation to combat marine plastics. This can be provided to an individual country level as below:

  Online event series entitled “Private Sector Initiatives to Reduce Marine Plastics” were organized focusing on Indonesia, Malaysia, Thailand and Viet Nam to relay lessons learned and policy gaps to the policy makers in each country (Cambodia forthcoming in Aug 2022)

- However, the RKC-MPD support is often delivered to the ASEAN regional level, which will in turn impact individual ASEAN Member States.

UNEP

- https://www.unep.org/news-and-stories/story/campaign-against-plastic-pollution-world-making-tentative-progress

  This story summaries how the New Plastics Economy Global Commitment supported national and city level governments in setting targets and accelerating actions to address plastic pollution.

WEF GPAP

- Integrating the informal sector in Indonesia is critical to improve livelihoods and meet the NPAP’s goal of doubling Indonesia’s waste collection and recycling capacity. In collaboration with the Incubation Network and the Ocean Plastic Prevention Accelerator (OPPA), GPAP launched an UpLink innovation challenge calling for ideas to solve key issues. All submitted solutions were assessed by a dedicated expert group. Twelve innovators were selected to receive support from the Incubation Network and OPPA to refine their solutions. The top three will be awarded a $5000 grant supported by Suntory and Indorama Ventures. In addition, the innovators gain access to UpLink events and the exposure via the World Economic Forum social media platform.

- NPAP Indonesia created a financing roadmap that outlines recommendations on mobilizing investment to meet the national marine plastic waste reduction target. It estimates a need for $18 billion in capital investment and an extra $1 billion per year in operational financing for solid waste management systems by 2040. As a member of the NPAP Indonesia Financing Task Force, the Alliance partners multiple stakeholders to tackle plastic waste, such as Project STOP in Jembrana, Bali. When complete in 2022, the integrated waste management system will serve about 140,000 people and divert about 3,000 tons of plastic waste annually. From these learnings, the aim is to mobilize fresh investment and scale a new purpose-built system to serve 2.5 million people in Malang, Java, by taking on early-development risks. In 2022, the Alliance to End Plastic Waste committed $77 million to plastic waste reduction in Indonesia, informed by our financing roadmap.

- In February and March, GPAP and OPLN (Ocean Plastics Leadership Network) organized Country Dialogues for a Plastics Treaty in Indonesia. The sessions aimed to build capacity on the potential Global Plastics Treaty at UNEA-5 and engage Indonesia stakeholders in national level dialogues. Representatives of the UN Environment Programme, Global Plastic Action Partnership, World Resources Institute (WRI) Indonesia, Fiscal Policy Agency, The Incubation Network, SecondMuse, Indonesia National Plastic Action Partnership, and many more gathered to discuss.

5.2. Local Level

Countries

Australia

- CSIRO research has shown container deposit schemes (CDS) can reduce drink containers in the ocean by 40%. CDS are in operation in South Australia, Northern Territory, New South Wales, Queensland, the Australian Capital Territory and Western Australia. Tasmania and Victoria have announced their scheme models which are expected to launch in 2023.

  https://www.sciencedirect.com/science/article/pii/S0308597X17305377

- States and territories are acting on the use of single use plastics with policies having been implemented already or planned in the near future.

Brazil

- With the Cleanups Results Dashboard it is possible to use different search filters to better identify the results of more than 460 local cleanup efforts throughout the country (184 municipalities in 26 of 27 states). According to their needs, users can analyze, for example, the organizing institutions, the number of volunteers involved, the most collected items and the destination of waste of each action.

  https://app.powerbi.com/view?r=eyJrIjoiYTQ5ZDA5NGItNGQ1OS00N2Y5LTgwMGQtOTdjYzBiNDYxOTMzIiwidCI6IjM5NTdhMzY3LTZkMzgtNGMxZi1hNGJhLTMzZThmM2M1NTBlNyJ9

Canada

Examples:

- Great Lakes Plastic Cleanup (reports & technical guides, including best practices for litter Seabins)

  https://www.greatlakesplasticcleanup.org/guides-reports

- Microplastics community science campaign

  https://www.oceandiagnostics.com/microplastics-citizenscience

China

- Xiamen establishes the "Xiamen Model" of marine litter governance
  - Establish a multi-department integrated management platform and coordination mechanism managed by the chief person in charge;
  - Use GIS to develop a marine litter monitoring and forecasting system, a visual model that can be used to track the floating path of marine litter;
  - Establish a comprehensive marine litter removal mechanism including the construction of collection stations along the coast;
  - Reduce the use of plastic fishing equipment and formulate mandatory rules to recycle fishery waste;
  - Establish a land-ocean coordination model to coordinate and control both land-based and ocean-based sources, including jointly managing rivers and marine litters.
- Public in Fujian Province spontaneously organizes activities to recycle marine fishery garbage
  - Xiangzhi Beautiful Coast Volunteers Association of Fujian Province have carried out coastline beach cleanup operations many times. As of 2020, nearly 1,000 tons of floating garbage on the coastline had been cleaned up;
  - On December 10, 2019, the Minshiyu 06053 and Minshiyu 07186 fishing boats returned to the port, brought back domestic garbage and wastes accumulated during several days of offshore operation, and started the spontaneous campaign of "Garbage on Boats Does Not Stay in the Sea";
  - In 2020, the Quanzhou City Shishi Ecology and Environment Bureau, together with the Xiangzhi Town People's Government and the Shishi City Xiangzhi Beautiful Coast Volunteers Association, developed an operational plan for the "Garbage on Boats Does Not Stay in the Sea" campaign, focusing on effectively solving the problem of marine litter pollution from ships. With the promotion and recognition of the demonstration experience of the campaign, a long-term sound operating mechanism will be established;
  - All fishing boats and auxiliary boats in Shishi City have adopted four "fixed" measures to form a long-term operating mechanism of marine fishery garbage recycling:
    - First, assigning a certain person in charge. Boat owners participating in the "Garbage on Boats Does Not Stay in the Sea" campaign need to designate a crew member on board as the person in charge of garbage collection, and each township needs to designate corresponding departments and staff in contact with crew members.
    - Second, regular recycling. Before returning to the port, the person in charge of the fishing boat's garbage collection should notify the relevant person in charge of the garbage collection volunteer team by phone or WeChat, and volunteers are responsible for receiving the garbage landed ashore.
    - Third, fixed-point storage. If volunteers are unable to come and collect garbage at certain time, the boat's garbage can be stored in collection points set up at various fishing ports. And a volunteer team will collect and count garbage the next day.
    - Fourth, quantifying rewarding points. Pilots are set up, in which rewarding points can be obtained for boat garbage collection, qualified townships can implement voluntary reward point measures, and corresponding volunteer points can be obtained according to the weight and value of garbage on the boats.

- Implementation Plan of Hainan Province to Ban the Production, Sale and Use of Non-degradable Single-use Plastic Products

  In order to actively promote the construction of the National Pilot Zone for Ecological Conservation and strengthen the prevention and control of plastic waste pollution, the production, sale, and use of non-degradable single-use plastic products are completely prohibited in Hainan Province. By the end of 2020, Hainan Province had banned the production, sale, and use of non-degradable single-use plastic bags and tableware. By the end of 2025, the province will impose an all-out ban on the production, sale, and use of plastic products listed for prohibition. The province has also actively advocated the whole society to form a green production and lifestyle, reduce the use of non-biodegradable single-use plastic products, and use biodegradable plastic, paper, cloth, and other substitute products, so as to reduce environmental pollution.

Costa Rica

- Permanent beach cleaning activities by NGOs and some municipalities

Fiji

- The Ministry of Environment has supported clean-up campaigns and collaborated with Recycling Companies to create awareness and advocacy.
- The Ministry also carries out enforcement of the relevant regulations/laws to combat MPL issues.

France

- An efficient waste management and fight against littering (fine)
- Awareness raising: since 2017, some municipalities have been implementing awareness-raising campaigns through the installation of "Here begins the sea" signs near sewer drains, in order to encourage citizens to dispose of their waste in the appropriate facilities and thus prevent litter.
- Municipalities have put in place nets to prevent litter from reaching the sea and rivers.
- Within the framework of the government's Recovery Plan, more than 200 million euros have been earmarked for the plastics sector over the period 2020-2022 to support companies and local authorities in their efforts to reuse and recycle (ORPLAST is one of them).

Indonesia

- Initiative of local government and universities on beach litter monitoring
- Local goverments policies on single-use plastic limitation

Italy

- Pantelleria, Lipari, Ustica, Lampedusa, Linosa and other islands: disposable plastic containers and tableware are banned.
- Tremiti Plastic Free Islands" had as its general objective the improvement of wastemanagement on the islands and their reduction, favoring the use of innovative tools. The project envisaged various activities carried out with the fundamental contribution of the islanders, which were substantially implemented with two lines of activities related to the fishing sector and domestic composting.

  More info: https://www.isolesostenibili.it/tag/plasticfree/

Japan

- Support for collection and treatment of coastal marine litter by local government

  We promote the collection and treatment of marine litter by local governments, through the "Project for promoting local measures against coastal marine debris" based on the "Marine Litter Act" (FY2021 budget: JPY 8.058 billion). In addition, fishery multi-functional measures (FY2020 budget: JPY 2.299 billion) are being used to encourage fishers to take action on the collection and treatment of marine litter including marine plastics, for the maintenance and recovery of the marine ecosystem. Furthermore, we encourage local governments to cooperate with fishers so that they bring back to port any litter that they collect while they are fishing, making use of subsidies under the "Project for promoting local measures against coastal marine debris" based on the "Marine Litter Act". In order to expand this effort, we started a demonstration project in FY2020. In addition, when fishers volunteer to collect marine litter, the national government has begun to provide full support for the litter processing cost and has decided to support 28 prefectures. It also provides financial support for fishery cleanup activities carried out by fishers who were forced to suspend their operations due to the effects of COVID-19.

Mexico

- We have the OLAS Clean Ocean Project, whose main objective is to prevent plastic waste generated on land from reaching aquatic ecosystems. There are 4 countries participating on this Project: Mexico, Egypt, Philippines, Filipinas y Morocco.
- More information can be consulted in:

  https://coprocesamiento.org/proyecto-olas-oceano-limpio/
- In addition to the marine litter working group, Mexico is part of Marine Litter Action Plan for the Northeast Pacific 2022-2026, along with Guatemala, Salvador, Honduras, Nicaragua, Costa Rica, Panama and Colombia.

  https://marviva.net/wp-content/uploads/2022/06/Plan-de-Accio%CC%81n-de-Basura-Marina-2022-2026.pdf

Nepal

- Plastic Bags Free Ilam Municipality
- Tillottama Municipality as a Plastic Free Zone

Norway

- The Polluter Control Act states that the municipalities have a duty to collect and ensure proper treatment of municipal waste. The municipalities charge each household a fee that fully covers all costs of waste management, including collection, transport, reception, storage, treatment and control. More than 80% of the waste is either recycled or used as energy. Where landfills still have to be used, they have to be designed and monitored to prevent run-off, discharges to air and spreading of litter.

Peru

- Source segregation Program: It is a technical instrument that must be prepared, approved and implemented by the provincial and district municipalities, through which, among other aspects, strategies are formulated to facilitate source segregation by generators of their jurisdictions and the design of the selective collection of usable solid waste (organic and inorganic), considering the results obtained from the Municipal Solid Waste Characterization Study (EC-RSM), as well as the definition of actions to guarantee the use of the solid waste generated in your jurisdiction.

Samoa

- Community driven mangrove clean up campaigns are very effective in raising awareness on the impact of plastic pollution. Local NGOs have also contributed positively in promoting community based initiatives through community driven mangrove clean ups and restoration programs.

Senegal

- Organization of seizure operations in supermarkets, gas stations, supermarkets, production plants, markets, stores, etc.
- Awareness-raising activities
- Use of alternative products;

Sri Lanka

- Material Recovery Facilities (MRF) are established to collect plastic waste for recycling.

Thailand

- Improve collecting waste system and waste management system to prevent leakage to river and sea.

UAE

- The Emirates of Abu Dhabi and Dubai have made progress in the implementation of banning single use items by regulating and introducing policies in 2022.
- The Emirate of Dubai, introduced a policy to regulate the use of single use items including plastic.
- Some of the emirates launched the Emirates mines project to collect waste in neighborhoods and residential areas, an initiative that provides the public with the possibility of sorting waste from the source and proper disposal of it.

US

- NOAA's Marine Debris Program provides summaries of past projects undertaken at a local or community-level that use outreach and education to prevent marine debris: https://marinedebris.noaa.gov/current-efforts/prevention
- US EPA Trash Free Waters Best Practices Compendium: https://www.epa.gov/trash-free-waters/aquatic-trash-prevention-national-great-practices-compendium

International Organisations and NGOs

ERIA

- ERIA's RKC-MPD has been working to enhance local level capacity building to address marine plastic pollution in ASEAN+3 region.

  The RKC-MPD has pointed out the necessity for a better regional waste management, and for that proposed inter-municipal cooperation and Public and Private Partnership as one way to address this challenge.

  Related Link:

  https://rkcmpd-eria.org/publication/18

- Additionally, the on-going research project in collaboration with the Regional Resource Centre for Asia and the Pacific of the Asian Institute of Technology (AIT RRC.AP) is targeting City Government officers in Thailand, the Philippines, Lao PDR and Viet Nam to develop and disseminate technical guidelines for plastics and resin pellets leakage prevention from factories and informal recycling sector in the ASEAN.

  Related link:

  https://rkcmpd-eria.org/updates/ERIA-and-AIT-Launched-a-Project-on-Plastic-Leakage-Prevention-from-Factories-and-Informal-Recycling-Sector-


800
700
600
500
400
300
200

5.3. Private Sector

Countries

Australia

- The Australasian Recycling Label (ARL) is a world-leading consumer education tool which helps households recycle and assists brand owners to design recyclable packaging. The Australian Government has also invested $5 million to support small-to-medium enterprises to implement the ARL on their packaging, in turn giving households greater guidance on how to recycle and keeping more plastics out of landfill.

Brazil

- The Sector Agreement for Reverse Logistics System for Packaging aims to ensure the environmentally appropriate final destination of packaging in general. Through this agreement with Ministry of the Environment, manufacturers, importers, traders and distributors of packaging and products sold in packaging commit to working together to ensure environmentally friendly destination of the packaging they place on the market. For more information, see item 3.1.1.
- Technical cooperation agreement to carry out awareness campaigns on the proper disposal of packaging. Signed in 2022 between the MMA and the Brazilian Association of Soft Drinks and Non-Alcoholic Beverages (Abir). The implementation of the agreement began with the "Create this Habit" campaign, which aims to help society in the conscious disposal of packaging used at home.
- Abir represents 71 non-alcoholic beverage manufacturers, which account for 90% of the market.
- According to Abir, the associates recovered 23.6% of all packaging material used in the last two years, totaling more than 176 thousand tons. In the same period, R$ 16.7 million was invested in support programs for cooperatives of recyclable material collectors.
- In addition, there are other important initiatives carried out by the private sector in Brazil, that are available through:
  - http://www.plastivida.org.br/index.php/conhecimento/artigos-e-publicacoes?lang=pt
  - https://www.coalizaoembalagens.com.br:6443/mapaTematicoTest.xhtml
  - https://www.greeneletron.org.br/
  - https://www.joguelimpo.org.br/institucional/index.php
  - https://inpev.org.br/index
  - https://www.reciclanip.org.br/
  - http://www.abiplast.org.br/publicacoes/
  - http://abree.org.br/sobre
  - https://abividro.org.br/
  - https://www.abralatas.org.br/

Canada

Examples:

- Circular Economy Business Toolkit

  URL:

  http://www.nzwc.ca/Documents/CircularEconomyBusinessToolkit.pdf
- Canadian Produce Marketing Association Preferred Plastics Guide

  URL:

  https://www.cpma.ca/docs/default-source/industry/2020/CPMA_Preferred_Plastics_Guide_English.pdf
- Operation Clean Sweep

  URL:

  https://canadianchemistry.ca/sustainability/operation-clean-sweep/
- Medical PVC Recycling Pilot Program – PVC 123

  URL:

  https://www.vinylinstituteofcanada.com/medical-pvc-recycling-pilot-program-pvc-123/
- A Roadmap to Support the Circularity and Recycling of Plastics in Canada

  URL:

  https://www.csagroup.org/article/research/a-roadmap-to-support-the-circularity-and-recycling-of-plastics-in-canada/
- Guidelines for how to start and run a bulk reuse and refillery business

  URL:

  https://scoutenvironmental.com/bulk-reuse-refillery-guide/
- Plastic Reduction Partner (for restaurants, chefs and other food professionals to reduce plastic waste)

  URL:

  https://plasticreduction.ocean.org/food-professionals/

Chile

- The Chilean fishing industry has signed a Clean Production Agreement (APL) "Sustainable Management of Solid Waste Assimilable to Households in Industrial Fishing Vessels". The purpose of which is to promote the reuse, recycling and recovery of assimilable domestic waste, especially plastics, generated by industrial fishing vessels. Since 2019, 6,500 tons of fishing nets have been recycled and around 6.2 tons of plastic bottles have been collected.

China

- Taizhou city of Zhejiang Province has created a model of "blue cycle" for marine plastic pollution control: the government and enterprises collaborate to organize fishermen to collect and recycle marine plastic waste, which will be transferred to relevant enterprises that will transform the wastes into high value-added products, such as mobile phone shells, and parts of the income will go back to the fishermen involved in marine plastic recycling.

Costa Rica

- Some companies are turning the way they produce, closing their production process, being more efficient and researching plastic substitutes, which can be renewable and compostable in marine and controlled environments.
- The Costa Rican plastic industry is willing to reengineer its production process and contribute to the required changes.

Fiji

- Public private partnership has been strengthened through pledges and commitments by individuals and businesses to reduce their operational wastes and explore recycling options.

France

- Development of links with the industrial sector: the "National Pact on plastic packaging" allows a commitment from the companies and the implementation of recycling, reusing and reducing plastic packaging targets. Moreover, an exceptional financial support scheme for the sale of recycled materials (to compensate the difference between the price of recycled materials and virgin materials" has been implemented by the ADEME at the end of 2020, enabling 60 projects to be supported. In 2021, the ADEME has also launched the ORPLAST project, a financial scheme aiming at increasing the incorporation of plastic recycling raw materials by plastic manufacturers as a substitute for virgin material by supporting feasibility/test studies and investments (adaptation of equipments, etc…).
- The Clean Sweep Operation is an international program for the actors of the plastic industry, and designed to prevent the loss of plastic pellets in the aquatic environment. It provides companies a guide with good practices to follow.

Japan

- Released "Good Practices for Reducing Microplastics" compiling a collection of good practices on the efforts and technologies of Japanese companies. Available from May 2021.

Mexico

- We have the OLAS Clean Ocean Project, whose main objective is to prevent plastic waste generated on land from reaching aquatic ecosystems. There are 4 countries participating on this Project: Mexico, Egypt, Philippines, Filipinas y Morocco.
- More information can be consulted in:

  https://coprocesamiento.org/proyecto-olas-oceano-limpio/
- In addition to the marine litter working group, Mexico is part of Marine Litter Action Plan for the Northeast Pacific 2022-2026, along with Guatemala, Salvador, Honduras, Nicaragua, Costa Rica, Panama and Colombia.

  https://marviva.net/wp-content/uploads/2022/06/Plan-de-Accio%CC%81n-de-Basura-Marina-2022-2026.pdf

Nepal

- Dokorecyclers: - a social enterprise that manages and recycles dry waste
- Khaalisishi: Purchases plastic bottles of shampoo, mineral water etc.
- Bhatbhateni Supermarket: No-Plastic Bag

Netherlands

- Operation Clean Sweep, which is now being converted to a formalized certification scheme.

Norway

- Several initiatives initiated and lead by the industry themselves. The Producer Responsibility Organization Green Dot Norway (Grønt Punkt Norge) has launched a Plastic Pledge. Businesses pledge to use more recycled plastic material, avoid unnecessary use of plastic, and design for recycling.
- According to the provisions in the Pollution Control Act, the industry has the responsibility to ensure environmentally sound treatment of their own plastic waste.
- Norway has EPR systems on plastic packaging, drinking bottles and beverage cans, and on e-waste. New EPR systems will be assessed for other plastic single use products in line with the EU SUP-directive, plastic equipment used in fisheries and aquaculture included.
- Norway has EPR systems on plastic packaging, drinking bottles and beverage cans, on e-waste. New EPR systems will be introduced for other plastic single use products in line with the EU SUP-directive, such as plastic equipment used in fisheries and aquaculture.

Peru

- There are currently 7 agreements signed between the Ministry of the Environment, the Ministry of Production and different companies (productive, extractive or service activities), with goals related to plastics:
  - Sistema Coca Cola Perú (Coca Cola and Arca Continental Lindley),
  - Unión de Cervecerías Peruanas Backus y Johnston SA,
  - Koplast industrial SAC,
  - Peruana de Moldeados SAC (Pamolsa),
  - Natura Cosméticos SA,
  - Cencosud Retail, and
  - Embotelladora San Miguel del Sur SA.

  Five of these companies have managed to achieve 100% of their goals, and have the recognition given by the Ministry of the Environment.

Samoa

- Partnership in installing of collection cages at main super markets and public places as a primary interception measures to capture/recover plastics for recycling.

Senegal

- Abandonment of prohibited plastics products

Singapore

- Cooperation with stakeholders:

  Singapore works with consumers, food and beverage establishments, supermarkets, and hotels to reduce the use of disposables and encourage consumers to bring reusables and decline disposables such as single-use bags or takeaway containers and cups.

Spain

- Some initiatives can be checked on these catalogues:

  https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/fichas-bpec-i-web_def_tcm30-525010.pdf

  https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/economia-circular/iicbpec_tcm30-534185.pdf

Sri Lanka

- Private sector has established plastic waste collection centres and recycling centres.

Thailand

- Private Sector collaborate with government offices to develop innovation to closing the loop on plastic products.

UK

The UK also supports non-governmental organisations and projects including 'Fishing for Litter', 'Marine Conservation Society' and the Global Ghost Gear Initiative.

- Fishing for Litter

  The UK supports Fishing for Litter, and the development of similar local schemes. This is a voluntary, unpaid litter bycatch removal scheme by commercial fishermen, run by KIMO UK, which provides fishing boats with bags to dispose of marine-sourced litter collected during normal fishing operations and arranges for waste disposal.

- Marine Conservation Society

  The UK funds the Marine Conservation Society to record litter from sections of our coast which helps us monitor the levels and trends of plastic pollution across several years. This data is used in combination with other monitoring data to inform our decisions about how to tackle marine litter. We welcome these efforts which provide valuable citizen science data and, encourage more people to become stewards of the marine environment. In 2021, the Marine Conservation Society's Great British Beach Clean reported that plastic and polystyrene pieces (0-50cm), cigarette stubs, packets, plastics caps and lids and string/cord were the most common items on UK beaches.

- Global Ghost Gear Initiative + Food and Agriculture Organisation

  In 2017 the UK signed up to the Global Ghost Gear Initiative (GGGI), the world-renowned experts and pioneering alliance of the fishing industry, private companies, NGOs and governments working to solve the global abandoned, lost and discarded fishing gear (ALDFG) problem. We fund and collaborate with GGGI on regional interventions via technical workshops, bespoke training and other outreach initiatives.

  The UK supports the Global Ghost Gear Initiative (GGGI) and the Food and Agriculture Organisation of the United Nations (FAO) international best practices outlined in the GGGI Best Practice Framework for the Management of Fishing Gear and the FAO Voluntary Guidelines for the Marking of Fishing Gear. The UK Commissioned OECD Report on ghost gear made recommendations to the G7 on how members can tackle ghost gear, including by joining the GGGI and by implementing the FAO guidelines.

US

- Operation Clean Sweep provides guidelines to help plastics industry operations managers reduce the loss of pellets, flakes and powder to the environment.

  https://www.opcleansweep.org/wp-content/uploads/OCS-Manual-2.pdf

- The Sustainable Packaging Coalition provides training and guides for sustainable packaging.

  https://sustainablepackaging.org/

International Organisations and NGOs

ERIA

The RKC-MPD has been working extensively to promote good practices carried out by the private sector to address marine plastic pollution in the ASEAN+3 region, acknowledging them to be one of the most important stakeholders in finding solutions for marine plastic issue.

- The RKC-MPD has launched an online private sector platform in January 2021 on its website (https://rkcmpd-eria.org/story). The platform hosts information submitted by private companies operating in ASEAN+3 countries to showcase their products, services, or technologies contributing to the reduction of plastic waste and marine plastic debris. It aims to be conducive to Business-to-Business Business-to-Consumer and/or Business-to-Government opportunities in the ASEAN+3 region along with information exchange and awareness raising. As of July 2022, 66 entries from 6 different countries (Japan, Malaysia, Indonesia, Viet Nam, Thailand, and Singapore) was shared on the website
- The RKC-MPD has been holding webinars on private sector related to plastic waste and marine plastics in ASEAN countries. The webinar has been held in 4 countries (Indonesia, Malaysia, Thailand, and Viet Nam) with the details as follows:
  - How Private Companies in Indonesia Combat Marine Plastic Debris (21 September 2021)
  - Malaysia's Private Sector: Innovation as a Driver to Tackle Marine Plastics (23 November 2021)
  - Towards Plastic Waste Free Thailand: Single-use Plastic Reduction and Replacement (18 February 2022)
  - Extended Producer Responsibility in Viet Nam: Challenges and Opportunities (1 April 2022)
  - Plastic Waste Management – Future Opportunities and Private Sector Good Practices in Cambodia (upcoming on 5 August 2022)

UNEP

- To support tourism businesses in continuing implementing ambitious actions towards circular economy of plastics in the context of the COVID19 pandemic, the Global Tourism Plastics Initiative launched the Recommendations for the tourism sector to continue taking action on plastic pollution during COVID-19 recovery. Few months after launch of the recommendations, a survey was shared with the Initiative's network. Findings of the survey show that 40% of respondents declared that their organization used the guidelines to define plastic reduction and management strategies; 40% of respondents also declared using the guidance as inputs to the development of the COVID-19 recovery plans and strategy. Booking.com used recommendation to develop a series of infographics to help businesses within its network to put recommendations into practice.

  https://www.oneplanetnetwork.org/sites/default/files/200722_-_recommendations_for_tackling_plastics_during_covid_recovery_in_tourism_-_eng.pdf

  https://www.oneplanetnetwork.org/programmes/sustainable-tourism/global-tourism-plastics-initiative/covid-19

5.4. International Cooperation

Countries

Australia

- Australia worked with other countries to launch negotiations for a new treaty to end plastic pollution, including in the marine environment, at the March 2022 United Nations Environment Assembly (UNEA 5.2). Australia will actively engage in negotiations to finalise the draft treaty by the end of 2024.
- The Australian government works closely with regional counterparts (for example SPREP) on the Pacific Ocean Litter Project. Cooperation has been based on genuine consultation with regional counterparts to ensure the Project meets regional needs. Through cooperation the Australian Government and SPREP developed a new delivery model for the Project as a result of severe delays caused by COVID-19 and recruited an in-country Project Manager to lead delivery of the Project in the region.
- Global treaty on plastic pollution:

  Australia worked with other countries to launch negotiations for a new treaty to end plastic pollution, including in the marine environment, at the March 2022 United Nations Environment Assembly (UNEA 5.2). Australia will actively engage in negotiations to finalise the draft treaty by the end of 2024.
- New Plastics Economy Global Commitment:

  Australia has committed to signing up to the New Plastics Economy Global Commitment in 2022. Launched in October 2018 by the Ellen MacArthur Foundation and UNEP, the Global Commitment provides a voluntary framework for countries to deliver actions towards a common vision of a circular economy for plastics.
- ANZPAC Plastic Pact:

  The Australian Government is also a supporting member of the Australia New Zealand Pacific Plastic Pact (ANZPAC). See below input on ANZPAC.
- Draft Indian Ocean Rim Association (IORA) Strategic Framework of Action on Marine Debris in the Indian Ocean:

  IORA is an inter-governmental organisation that aims to foster regional economic cooperation. IORA has evolved into the peak regional grouping to span the Indian Ocean and consists of 23 member countries that border the Indian Ocean, including Australia. Work is currently underway to develop a Strategic Framework of Action on Marine Debris which aims to minimise waste generation on land, thereby reducing the amount of plastic waste that enters the rivers and oceans by developing joint strategies and actions.
- East Asia Summit (EAS) Leaders' Statement on Marine Sustainability:

  Australia co-sponsored the 2020 EAS Leaders' Statement on Marine Sustainability, which aligned with Australia's focus on ocean health, combatting marine plastic debris, and addressing illegal, unreported and unregulated fishing.
- Other international activities:

  Australia is also a member of the Commonwealth Clean Ocean Alliance, the United Nations Environment Programme Clean Seas Campaign, the G20 Marine Litter Action Plan and G20 Implementation Framework for Actions on Marine Plastic Litter, the High-Level Panel for a Sustainable Ocean Economy and the International Coalition to Reduce Plastic Bags Pollution. Under the UN Clean Seas Campaign, Australia has made several public commitments, including packaging targets.

Brazil

- TerraMar Project

In 2020, a strategy was drawn up within the scope of the TerraMar Project to implement the National Plan to Combat Marine Litter, with concrete actions aimed at combating marine litter and promote sound management of solid waste. TerraMar (Protection and Integrated Management of Marine and Coastal Biodiversity Project) main goal is to promote integrated environmental and territorial management and to contribute to the conservation and sustainable use of coastal and marine biodiversity.
TerraMar Project is a partnership between the Ministry of the Environment of Brazil (MMA), Chico Mendes Institute for Biodiversity Conservation (ICMBio) and German Ministry of the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV), in the context of the International Climate Initiative (IKI, acronym in German), and implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.
For more information about TerraMar Project access: https://www.giz.de/en/worldwide/40476.html

Canada

Examples:

- Ocean Plastics Charter

  https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/international-commitments/ocean-plastics-charter.html
- Addressing Single-Use Plastic Products Pollution Using Life Cycle Approach

  https://www.lifecycleinitiative.org/wp-content/uploads/2021/02/Addressing-SUP-Products-using-LCA_UNEP-2021_FINAL-Report-sml.pdf
- "Last Stop: The Ocean" Campaign Toolkit and Website

  http://www.laststoptheocean.com/

- Reducing Marine Litter Through Local Action: A Toolkit for Community Engagement

  http://www3.cec.org/islandora/en/item/11870-reducing-marine-litter-through-local-action

Chile

- Since 2017, the Ministry of Foreign Affairs and the Ministry of Environment of Chile have actively participated in international groups working on the preparation for scientific, legal, and administrative information to establish a background to support UNEA 5 resolution 5/14 with the mandate of starting the negotiation for an international legally binding instrument to end plastic pollution including in the marine environment.
- In this framework, Chile has participated on the four meetings of the "Ad hoc open-ended expert group on marine litter and microplastics", the "Scientific Advisory Committee on Marine Litter and Microplastics", the Forum of Ministers of Environment of Latin America, and the Caribbean and the United Nations Environment Assembly.
- In addition, it is worth noting the active participation that our country has had in initiatives that seek to address the problem of marine litter and plastic pollution, such as the International Maritime Organization, the Basel Convention (in whose last COP the inclusion of plastic waste in the field of its competence), the APEC Asia-Pacific Economic Cooperation Forum (where we led in 2019, together with the Republic of Korea, the development of a roadmap on marine debris in the region) and the Pacific Alliance's roadmap for a sustainable management of plastics.
- During the resumed Fifth Session of UNEA, or UNEA 5.2, Chile co-sponsored the original draft resolution presented by Peru and Rwanda. The Chilean delegation at UNEA 5.2 promoted the paragraph that recognizes the important work of waste pickers and informal workers, including them in this international process. Chile, together with Portugal, chairs the Group of Friends of Nairobi to Combat Marine Litter and Plastic Pollution, an instance that has brought high-level technical-political discussion between the Embassies accredited to UNEP. Finally, Chile is part of the "High Ambition Coalition to End Plastic Pollution" promoted by Norway and Rwanda, as a result of the resolution adopted at UNEA 5.2.
- This active engagement has allowed to express and support the environmental position of Chile in the multilateral arena, including the experience acquired in the development of relevant regulations on extended producer responsibility and recycling promotion of plastic packaging, environmental risk assessment of plastic pollution, phasing out single use plastic and plastic bags, among other examples.

China

- We have fully taken part in international processes on addressing marine litter

Costa Rica

- Support by EPA, German cooperation GIZ, UNDP and PROMAR, that have been encouraged to provide collaboration to work on the issue of marine debris, with the aim of knowing more about this ecosystem and its affectations, as well as researching renewable products and natural fibers that contribute to improve these ecosystems and the quality of life of the users of the seas.

Fiji

- The Fiji Government (with Ministry of Environment as the focal point) in partnership with the Japan International Cooperation Agency (JICA) in its efforts to promote waste management through recycling programs piloted Waste Management projects (extended to 11 municipalities). The project targeted a number of identified communities and schools to promote waste separation, composting and to assist municipalities in establishing their recycling system pathways. The 3R concept was widely promoted through the project. The Ministry of Environment is also working with Regional organizations to address waste management issues.

France

- Participation to meetings and working groups (UN, G7, G20, RSC, EU, etc)

  France organized in 2017 and 2019 a workshop to share results and methodologies of existing projects analyzing riverine plastic pollution. Harmonized methodologies are needed for a long-term plastic pollution monitoring in rivers and should help assess measures efficiency. The outputs of this workshop was an exchange of knowledge, improved relations between researchers and NGOs running riverine litter monitoring projects and a first draft summarizing advantages and disadvantages of every method discussed during the workshop.

Italy

- The New Plastics Economy Global Commitment By Ellen MacArthur Foundation and UNEP

  Through the Global Commitment, businesses and governments commit to change how we produce, use, and reuse plastic. We will work to eliminate the plastic items we don't need; innovate plastic design to be safely reused, recycled, or composted; and circulate everything we use to keep it i n the economy and out of the environment. The Global Commitment

  https://ellenmacarthurfoundation.org/global-commitment/overview

- PLASTIC BUSTER project

  Financed by the ENI CBC Med Programme, Plastic Busters CAP kicked off in January 2022 to consolidate and fully leverage the knowledge obtained by five key previous projects to d evelop tailored made capitalization actions in the north and the south of the region, ultimately aiming to support decision makers and stakeholders in tackling marine litter issues by integrating EbM (Ecosystem Based Management Approach) into ICZM (Integra ted Coastal Zone Management) planning towards good environmental status. Project activities in Italy, Greece, Spain, Egypt, Tunisia, Lebanon, Jordan implemented by a team of universities, research institutes, environmental NGOs, national and local author ities, and other civil society agents under the leadership of ITALY.

  https://plasticbustersmpas.interregmed.eu/

Japan

- International cooperation to developing countries

  Under the ”MARINE Initiative” explained above in 3.2.3, Japan provides support to empower developing countries to promote waste management, recovery of marine litter, and innovation, including provision of training for 10,000 officials engaging in waste management all over the world by 2025.

  Japan will continue to provide support to ASEAN countries, based on the ASEAN+3 Marine Plastics Debris Cooperative Action Initiative, for various measures such as: awareness raising for local governments, citizens and business units; development of national action plans on marine litter; capacity building for proper waste management including waste-to-energy infrastructure; as well as promoting knowledge-sharing through “Regional Knowledge Centre for Marine Plastic Debris“.

  Japan also worked in cooperation with international organizations to implement numerous projects to tackle marine plastic pollution. For example, Japan has earmarked over USD1.1 million to support the United Nations Environment Programme (UNEP) to implement countermeasures against marine plastic litter in Southeast Asia and India (CounterMEASURE) by using novel technologies and methodologies to track plastic pollution to its source along the Mekong and Ganges rivers. This project also supports local partnerships for reducing plastic pollution. Since May 2020, the 2nd phase of CounterMEASURE has been implemented on a larger scale with a substantial contribution (USD 5.7 million) from Japan. The project aims to generate and share scientific knowledge on plastic pollution in the Ganges, Mekong, and selected rivers in Sri Lanka to inform policy and decision-making processes at local, national, regional, and global levels.

  Additionally, Japan-ASEAN Integration Fund (JAIF) financed several projects to mitigate marine plastics in Indonesia, Cambodia, Singapore, Thailand, Philippines, Brunei, Vietnam, Malaysia, Myanmar and Lao People's Democratic Republic.

  Furthermore, UNEP International Environmental Technology Centre (IETC) has implemented a project on “Support for research on environmentally sound management, technology and treatment with Plastic Waste throughout Asia” based on the Osaka Blue Ocean Vision. The project includes a study on Needs Assessment of Environmentally Sound Technologies of Plastic Waste Management and a study on available technologies for plastic waste towards environmentally sound management (USD 909,090). The project also aims to update technical guidance and capacity building on best available techniques, good practices, best environmental practices and risk reduction developed with various stakeholders for the sound management of waste during the COVID-19 pandemic.

Netherlands

- Best practices linked to the collaboration in OSPAR, such as:
  - Action53: Fishing for Litter- OSPAR Commission: https://www.ospar.org/work-areas/eiha/marine-litter/regional-action-plan/fisheries-related-actions/fishing-for-litter
  - Sustainability education programmes for fishermen: https://www.ospar.org/documents?d=40977
  - See for more information: Action Plan for Marine Litter - OSPAR Commission: https://www.ospar.org/work-areas/eiha/marine-litter/regional-action-plan

  See for more information: Action Plan for Marine Litter | OSPAR Commission

  Also: the European Plastics Pact (source / 13-12-2020).

- Europe

  European Plastics Pact

  https://ellenmacarthurfoundation.org/the-plastics-pact-network

  Home - European Plastics Pact

  https://europeanplasticspact.org/

  As of April 2021, the 147 signatories of the European Plastics Pact come from 21 countries in Europe and include:
  - 15 National governments
  - 19 Packaging manufacturers
  - 11 Waste management businesses
  - 9 Plastics manufacturers
  - 9 Brands (non-food)
  - 6 Brands (food)
  - 4 Retailers

- North America

  U.S. Plastics Pact led by The Recycling Partnership

  https://usplasticspact.org/

  https://recyclingpartnership.org/

- South America

  Circula El Plástico in Chile led by Fundación Chile

  https://newplasticseconomy.org/news/chile-joins-plastics-pact-network

  https://fch.cl/

- Africa

  The South African Plastics Pact, led by Green Cape,

  https://www.saplasticspact.org.za/

  https://www.green-cape.co.za/

Norway

- Norway has signed on to the G7 Plastics Charter, the G20 Action Plan and has been a strong promoter of the four relevant resolutions passed by the UNEA, as well as measures taken by IMO and the Basel Convention.
- The Norwegian Development Program to Combat Marine Litter and Microplastics was launched in 2018. The programme is intended to contribute to Sustainable Development Goal (SDG) 14.1 which states that by 2025, the world should prevent and significantly reduce marine pollution of all kinds and the UNEA-3 agreed vision to eliminate the discharge of litter and microplastics to the oceans over time. The main objective of the Norwegian development program to combat marine litter and microplastics is to prevent and greatly reduce the extent of marine litter from large sources in developing countries.
- To achieve this, funding is set to focus on four outcomes:
  - Management of plastic waste in partner countries is improved
  - Selected coastal areas and rivers are cleared of waste and the waste is sustainably managed.
  - Private sector performance regarding sustainable production and use, and responsible waste management, is improved
  - Global commitments and national and regional instruments to prevent marine litter are strengthened.
- Projects are being implemented through multilateral organizations such as the UN and the World Bank, NGOs and research institutes. Geographic focus is on fast-growing economies in South East Asia and Africa, as well as small island developing states to improve waste management systems and clean-up along the shore. Some 40 projects worldwide are funded by the programme.
- Norway has for a long time been advocating a global agreement on plastic pollution. At UNEA-5 it was decided to start negotiation of such a global agreement. Norway will actively engage in the negotiatons.

Peru

- Projects to improve and expand the integral management of solid waste in 31 municipalities.
- Electronic Waste Project Latin America PREAL (GEF)
- Sustainable recycling industries project phase II
- Diagnostic about the Special Regime for the Management of containers and packaging is being made with the financing of international cooperation.
- Project: “Support Peru in the Transition to a Circular Economy" (European Union)
- Projects to improve and expand the integral management of solid waste in 31 municipalities.
- Electronic Waste Project Latin America PREAL (GEF)
- Sustainable recycling industries project phase II
- Diagnostic about the Special Regime for the Management of containers and packaging is being made with the financing of international cooperation.
- Project: “Support Peru in the Transition to a Circular Economy" (European Union)

Republic of Korea

- The 7th International Marine Debris Conference (7IMDC) is co-hosted by the United Nations Environment Programme (UNEP) and the Ministry of Oceans and Fisheries (MOF) of the Republic of Korea (ROK), with the support of the Korea Marine Environment Management Corporation (KOEM). The 7IMDC will be held from the 18th to the 23rd of September, at the BEXCO Conference Center in the bustling port city of Busan.
- The International Marine Debris Conference (IMDC), since its first conference held in the United States in 1984, is the world’s largest and longest-running conference series dedicated to the issue of marine debris and plastic pollution. The 5IMDC saw the launch of the Honolulu Strategy- a landmark framework for a comprehensive and global effort to reduce the ecological, human health, and economic impacts of marine debris.
- The 7th IMDC will build on the momentum of past IMDCs by bringing together governments, industry, academia, civil society, and all relevant stakeholders, to discuss the latest science, strengthen collaborations, find solutions and catalyze action to address the urgent, global problem of marine litter and plastic pollution.

Samoa

- Access to funding to implement key priorities. This is evident in the many projects targeting waste management currently being implemented by the Ministry and key partners.

Senegal

- Co-sponsor of the resolution on plastic pollution

Singapore

- Singapore actively participates in regional and global marine litter platforms under ASEAN and the UN.

Sri Lanka

- NORAD and BRSM China is supporting with two projects on plastic waste management

  Project on Marine Litter and Microplastics: Promoting the Environmentally Sound Management of Plastic Wastes and Achieving the Prevention and Minimization of the Generation of Plastic Wastes

  Capacity Building on Environmentally Sound Management of Single-use-Plastic and its Waste in Asia-pacific Countries

- Submitted a joint resolution to UNEA 4 on "Marine plastic litter and microplastics" - 2019
- Co-Sponsored the resolution on an international legally binding instrument on marine plastic pollution proposed by Japan - 2022

Thailand

- Partner with GIZ and German Government for conduct activities to reduce plastic waste in cities, pilot sites.
- Capacity building on marine litter with international organizations such as COBSEA
- IOC/WESTPAC, Ministry of Environment, Government of Japan JICA, GPML

UK

- International Maritime Organisation (IMO)

  The UK is active at the IMO debating the issue of Marine Plastic Litter and responding to requests for information via correspondence groups. In 2018, IMO adopted an Action Plan to address marine plastic litter from ships and in 2021 a Strategy to address marine plastic litter from ships.

  The Marine Environment Protection Committee (MEPC) adopted the Strategy, which sets out the ambitions to reduce marine plastic litter generated from, and retrieved by, fishing vessels; reduce shipping's contribution to marine plastic litter; and improve the effectiveness of port reception and facilities and treatment in reducing marine plastic litter.

- United Nations (UN)

  SDGs

  The UK is committed to SDG Target 14.1: 'By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution'. Progress towards SDG14 targets will underpin the sustainable development of the ocean. At the United Nations Ocean Conference in June 2017, the United Kingdom made four voluntary commitments under the SDG14 on the following topics:

  - Marine science. The UK pledged to work actively with international partners in a range of major issues such as strengthening global ocean observations, world ocean assessments and data sharing.
  - Marine Litter. The UK committed to several actions in order to combat marine litter. These include reducing the volume of single use plastic bags, the introduction of national litter strategies and banning microbeads in personal care products. The UK also signed up to the UN Clean Seas Initiative.

  The UK supports UN Clean Seas. The campaign contributes to the goals of the Partnership on Marine Litter. The UK also supports and is committed to the UN Partnership on Marine Litter.

- G7: UK's 2021 G7 presidency

  Recognising the scale, urgency and transboundary nature of the global action needed to tackle marine plastic litter and microplastics the UK this year has driven the G7 to commit to fully engage in discussions or negotiations at the next session of UNEA on options including a potential new global instrument, strengthening existing agreements and a multi-stakeholder platform.

  The G7 have also committed to step up international action to tackle ghost gear, which has a significant direct impact on marine life, including an agreement to support organisations such as the Global Ghost Gear Initiative and agreement to carefully consider the recommendations of the UK commissioned OECD report 'Towards G7 Action to Combat Ghost Fishing gear'.

- OSPAR

  As a Contracting Party to the OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic, the UK develops and implements actions under the OSPAR Regional Action Plan for Marine Litter and participates in monitoring programmes to assess regional trends in marine litter. The UK attends the Intersessional Correspondence Group on Marine Litter to coordinate work to tackle this issue, developing and implementing actions under the OSPAR Regional Action Plan for Marine Litter. Contracting Parties agreed the North East Atlantic Environment Strategy 2030 in 2021, which includes strategic and operational marine litter objectives. Strategic Objective 4 is to "Prevent inputs of and significantly reduce marine litter, including microplastics, in the marine environment to reach levels that do not cause adverse impacts to the marine and coastal environment with the ultimate aim of eliminating inputs of litter".

  To achieve this, OSPAR adopted the second Regional Action Plan on Marine Litter in 2022, which sets out the programme of work on marine litter to 2030. The UK is leading and supporting on a number of actions to tackle marine litter from both land and sea-based sources, including an action on preventing and reducing marine litter from aquaculture and preventing the loss of plastic pellets in the supply chain. At the UN Ocean Conference in June 2022, OSPAR's Second Regional Action Plan on Marine litter was accepted as a UN Voluntary Commitment (Ocean Action 47413).

The RAP ML 2 will be implemented, as far as possible, in cooperation with other relevant work and initiatives from regional and global organisations, including UNEP and other Regional Seas Conventions, the International Maritime Organisation, the Convention on Biological Diversity, the European Union, Fisheries Regional Advisory Councils, North-East Atlantic Fisheries Commission and River Basin Commissions.

US

- The Trash Free Waters International Implementation Guide – a tool that provides step-by-step guidance for including all stakeholders, either at the national, state, or community level in decision-making to address land-based sources of marine litter.

  https://www.epa.gov/sites/production/files/2021-01/documents/tfw_howtoguide_20201228_finalprint_508_final.pdf

- Best Practices for Solid Waste Management: A Guide for Decision-Makers in Developing Countries - The Guide covers a diverse set of important topics for city-level decision-makers around the world including stakeholder engagement, waste management planning and economics, waste collection and transportation, prevention, minimization, and recycling, landfill design and operation, and energy recovery.

  https://www.epa.gov/international-cooperation/solid-waste-management-guide-developing-countries

- Virtual Landfill Construction & Operations Workshop - This virtual workshop contains module presentations, links to videos of the instructors delivering the modules, and the manuals/reference documents on which the workshop is based. The target audience is private and public sector solid waste management officials.

  https://response.epa.gov/site/site_profile.aspx?site_id=15071

- USAID Clean Cities Blue Ocean virtual event and training hub: https://gateway.on24.com/wcc/eh/3570340/usaid-clean-cities-blue-ocean-engagement-hub

- The Building Blocks of a Circular Economy: USAID's Local Systems Approach to Reducing Ocean Plastic Pollution https://urban-links.org/resource/the-building-blocks-of-a-circular-economy-usaids-local-systems-approach-to-reducing-ocean-plastic-pollution/

- USAID's Solid Waste Capacity Index for Local Governments (SCIL) Assessment Tool: https://urban-links.org/resource/solid-waste-capacity-index-for-local-governments-scil-assessment-tool-overview/

- Stopping Ocean Plastic Pollution from Cities: A USAID Case Study from Parañaque City, Philippines: https://urban-links.org/resource/stopping-ocean-plastic-pollution-from-cities-a-usaid-case-study-from-paranaque-city-philippines/

- Circularity Assessment Protocol Manila, Philippines: https://urban-links.org/resource/circularity-assessment-protocol-manila-philippines/

- Funding Options for Solid Waste Systems in Low- to Middle-Income Countries (USAID Report): https://urban-links.org/resource/funding-options-for-solid-waste-systems-in-low-to-middle-income-countries/

- Social and Behavior Change Trials of Improved Practices: Final Results – Samaná Province, Dominican Republic (USAID Report): https://urban-links.org/resource/social-and-behavior-change-trials-of-improved-practices-final-results-samana-province-dominican-republic/

- Case Study Report on Behavior Change in Local Systems to Mitigate Ocean Plastic Pollution: https://urban-links.org/resource/behavior-change-in-local-system-to-mitigate-ocean-plastic-pollution/

- Women's Economic Empowerment and Equality in Waste Management and Recycling: Latin America and the Caribbean Landscape: https://urban-links.org/resource/womens-economic-empowerment-and-equality-in-waste-management-and-recycling-latin-america-and-the-caribbean-landscape/

- Women's Economic Empowerment and Equality in Waste Management and Recycling: Global Landscape: https://urban-links.org/resource/womens-economic-empowerment-and-equality-in-waste-management-and-recycling/

- Understanding the Ocean Pollution Problem in Latin America & the Caribbean: https://urban-links.org/insight/understanding-the-ocean-pollution-problem-in-latin-america-the-caribbean/

- Turning the Tide: How Can Indonesia Close the Loop on Plastic Waste? https://www.wilsoncenter.org/publication/insightout-issue-7-turning-tide-how-can-indonesia-close-loop-plastic-waste

International Organisations and NGOs

ERIA

One of the mandates of the RKC-MPD is to facilitate regional/international cooperation. This includes collecting and disseminating good practices undertaken by different ASEAN+3 countries, networking with relevant organizations and institutions to take joint actions/undertake joint projects, sharing ASEAN+3 knowledge at different international forums, among others. Some of the concrete activities are listed below:

- Strengthening the role as a network hub for the ASEAN+3 countries (ASEAN Member States, China, Japan, and Republic of Korea)
  - The continued updating of the RKC-MPD website as an information sharing platform in the region (https://rkcmpd-eria.org/). The main content of the website is Good Practices section, which shares National Framework to Tackle Marine Plastic Debris (including Ministries and Coordination Mechanism, National Laws and Regulations, Local Regulations, Action Plans and Roadmaps, and International Agreement), Government Initiatives, Scientific Knowledge, and Voluntary Initiatives.
  - Networking between ASEAN and target countries. Participating in ASEAN Working Groups (ASEAN Working Group on Chemicals and Waste, ASEAN Working Group on Coastal and Marine Environment) as well as conducting dialogue with each country by identifying focal ministries and their focal points.
  - Strengthening cooperation with relevant organizations and institutions such as ASEC, IGES, GIZ, AIT-RRC.AP, NUS, ASEAN-Japan Centre, OECD, UNEP, UNDP, JICA, CLOMA, AEPW, among many others.
  - Conducting webinars and taking part in public discussions with research institutions and major international organizations in the region, including:
  - The Mission of the Republic of Korea to ASEAN and RKC-MPD's ERIA Joint Webinar: The Way Forward for a Stronger Regional and International Cooperation on Marine Plastic Debris
  - RKC-MPD's ERIA and United Nations Development Prgramme Indonesia Joint Webinar on Youth: SDG Talks Series - Rainy Days: High Season for Marine Plastic Litter?
  - 'ASEAN on Point' Public Forum: How Policies Can Support the Private Sector in Combatting Marine Plastic Debris
  - ERIA-IGES Joint Webinar on Estimating Plastic Waste and Pollution for Data-driven Policy Making in Emerging Economies at the occasion of 7th 3RINCs
  - CMMIA-MOEJ Online Workshop: Strengthening Capacity for Marine Debris Reduction and Waste Management in ASEAN Region through Knowledge Sharing on Marine Litter
  - Indonesia-Japan Environmental Week Online Seminar 5: Strengthen Partnership between Public and Private on Marine Plastic Litter and Waste Management
  - ERIA-AIPA Online Joint Dialogue on Waste Management in the Context of COVID-19 Pandemic.
- Information sharing for international frameworks or initiatives
  - Updating activities of the RKC-MPD at various meetings and conferences conducted by Ministries of Environment of ASEAN+3 countries, ASEAN Secretariat, G7, G20, JICA, OECD, UN, COBSEA, and others.
  - Creation of videos for the awareness raising and introduction of Regional Knowledge Centre for Marine Plastic Debris

  (https://www.youtube.com/watch?v=QY1sBaTgd-0) and private sector initiatives (https://www.youtube.com/watch?v=BFQV7CRx8Rk)

IAEA

- The IAEA Technical Cooperation Programme (TCP) provides the opportunity for Member States with the various stakeholders from specialized organizations, academe, private sector and the non-governmental organizations to collaborate on a common target addressing a developmental issue and where nuclear science and technology has an added value. Member States participate in the TCP through national, regional or interregional projects; and receive support for capacity building through expert services, training through courses, fellowships and scientific visits as well as enhancement of relevant facilities. South-South cooperation, Triangular Cooperation and Technical Cooperation amongst Developing Countries are amongst the best practices that facilitate effective and efficient capacity building in the countries.

  Ref: Nuclear technology for development used safely, peacefully, securely | IAEA

  https://www.iaea.org/services/technical-cooperation-programme

  The IAEA also delivers research and development in applied nuclear science and technology through Coordinated Research Projects, which bring together 10 to 15 research institutions in both developing and developed Member States to collaborate on research topics of common interest for a period of three to five years. Research, technical and doctoral contracts and research agreements are awarded to some participating institutions under these CRPs. Presently, there are two dedicated CRPs in the IAEA NUTEC Plastics initiative. (Ref: How CRPs work | IAEA IAEA)

  https://www.iaea.org/services/coordinated-research-activities/how-crps-work

  The IAEA also has its Peaceful Uses Initiative (PUI), which targets mobilizing extrabudgetary contributions to support technical cooperation and other unfunded projects of the IAEA in the areas of peaceful application of nuclear technology, including one PUI project on marine plastic.

UNEP

- UNEP's Global Recovery Observatory collects, analyses and communicates data on COVID-19 related fiscal responses in 89 countries and their potential impact on key environmental and socio-economic sustainability indicators. The database has over 8500 policies as of July 1, 2022 and has investment policies related to the issue of marine pollution which can be compared across countries to identify best practices and improve country knowledge exchange

  https://recovery.smithschool.ox.ac.uk/tracking/

UNIDO

- In collaboration with UNIDO, UNEP and EU, the Global Alliance on Circular Economy and Resource Efficiency (GACERE) has been established in February 2021. Bringing together governments and relevant networks and organizations, the GACERE aims to provide a global impetus to initiatives related to the circular economy transition, resource efficiency, sustainable consumption and production patterns, and inclusive and sustainable industrialization.

  Fifteen countries (Canada, Chile, Colombia, India, Japan, Kenya, Morocco, New Zealand, Nigeria, Norway, Peru, Republic of Korea, Rwanda, Switzerland and South Africa) and the European Commission on behalf of the European Union have joined the Alliance to date. Mexico, Singapore, and Switzerland maintain observer status.

WEF GPAP

- GPAP's core focus lies on bringing together and working closely with partners from government, business, NGOs, academia and others to drive vital impact. Through GPAP's Advisory Committee and other forums we also coordinate and collaborate with other key global platforms addressing plastic pollutions, including WWF, WRG the World Bank, WRAP, the Ellen Macarthur Foundation and UNEP. GPAP is also affiliated with the Platform to Accelerate the Circular Economy (PACE).
- GPAP focuses its activities in ODA-eligible countries, which means that many of the countries it engages in are not part of the G20 group, except Indonesia, India and Mexico (Mexico-City-level partnership).
- Canada and the United Kingdom, both G20 countries, are among the founders of the initiative.

6. Further Information

Countries

Brazil

- National Plan to Combat Marine Litter: https://www.gov.br/mma/pt-br/assuntos/agendaambientalurbana/combate-ao-lixo-no-mar
- Zero Waste Dumpsite Program https://www.gov.br/mma/pt-br/assuntos/agendaambientalurbana/lixao-zero

Canada

- Canada's Zero Plastic Waste website: www.canada.ca/zero-plastic-waste
- Ocean Plastics Charter: https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/international-commitments/ocean-plastics-charter.html
- Canada-wide Strategy on Zero Plastic Waste: https://ccme.ca/en/res/strategyonzeroplasticwaste.pdf
- Canada-wide Action Plan on Zero Plastic Waste (Phase 1 & Phase 2): https://ccme.ca/en/res/1589_ccmecanada-wideactionplanonzeroplasticwaste_en-secured.pdf https://ccme.ca/en/res/ccmephase2actionplan_en-external-secured.pdf
- Canada's Plastics Science Agenda https://www.canada.ca/en/environment-climate-change/services/science-technology/canada-science-plastic-agenda.html
- Science Assessment of Plastic Pollution https://www.canada.ca/en/environment-climate-change/services/evaluating-existing-substances/science-assessment-plastic-pollution.html
- A proposed integrated management approach to plastic products: discussion paper - Canada.ca https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/plastics-proposed-integrated-management-approach.html
- Canada Gazette, Part II, Volume 155, Number 10: Final Order Adding plastic manufactured items to Schedule 1 to the Canadian Environmental Protection Act, 1999 https://canadagazette.gc.ca/rp-pr/p2/2021/2021-05-12/html/sor-dors86-eng.html
- Microbeads in Toiletries Regulations: https://www.canada.ca/en/health-canada/services/chemical-substances/other-chemical-substances-interest/microbeads.html
- Canadian Plastics Innovation Challenges: https://www.ic.gc.ca/eic/site/101.nsf/eng/00001.html
- Zero Plastic Waste Initiative: https://www.canada.ca/en/environment-climate-change/services/environmental-funding/programs/zero-plastic-waste-initiative.html
- Combatting marine litter: Ghost Gear: https://www.dfo-mpo.gc.ca/fisheries-peches/management-gestion/ghostgear-equipementfantome/index-eng.html
- Reducing plastic waste in federal operations: https://www.canada.ca/en/treasury-board-secretariat/services/innovation/greening-government/government-canada-actions-plastic-waste-federal-operations.html
- Economic Study: https://publications.gc.ca/site/eng/9.871296/publication.html
- Socio-economic and environmental study on remanufacturing and other value-retention processes in Canada: https://www.canada.ca/en/services/environment/conservation/sustainability/circular-economy/consultation-page-remanufacturing.html

Costa Rica

- For more information you can visit the websites of:
  - United Nations Program: https://www.undp.org/es/costa-rica/contactenos
  - National Strategy for Alternatives to Single-Use Plastic: http://estrategia.zonalibredeplastico.org
  - Website of the Directorate of Environmental Quality Management of the Ministry of Environment and Energy: http://www.digeca.go.cr
  - Website of the Ministry of Health: www.misalud.go.cr

Fiji

- https://fijiclimatechangeportal.gov.fj/ppss/republic-of-fiji-national-ocean-policy-2020-2030/
- https://www.fbcnews.com.fj/news/seven-r-policy-to-help-achieve-zero-emission-targets/
- https://www.fijitimes.com/zero-waste-ambition/
- https://fijisun.com.fj/2022/07/14/students-involved-to-change-mindset/

France

- Legislation for energy transition for green growth: https://www.ecologique-solidaire.gouv.fr/sites/default/files/Energy%20Transition%20for%20Green%20Growth%20Act%20in%20action%20-%20Regions%2C%20citizens%2C%20business%20%28%2032%20pages%20-%20juillet%202016%20-%20Versions%20anglaise%29.pdf
- Legislation for Reclaiming biodiversity, nature and landscapes law https://www.gouvernement.fr/en/reclaiming-biodiversity-nature-and-landscapes
- Legislation for trade relations balance in the agricultural sector and healthy and sustainable diet (EGAlim) https://www.gouvernement.fr/en/achieving-a-balance-in-trade-relations-in-the-agricultural-sector-and-healthy-and-sustainable
- Anti waste law for a circular economy https://circulareconomy.europa.eu/platform/sites/default/files/anti-waste_law_in_the_daily_lives_of_french_people.pdf

Japan

- National Action Plan for Marine Plastic Litter (Japanese only) http://www.env.go.jp/water/Marine%20plastic%20litter%20countermeasure%20action%20plan.pdf
- Resource Circulation Strategy for Plastics (Japanese only) https://www.env.go.jp/press/files/jp/111747.pdf
- The Act on Promotion of Resource Circulation for Plastics https://www.gov-online.go.jp/eng/publicity/book/hlj/html/202205/202205_09_en.html
- Subsidy for the local government (Japanese only) http://www.env.go.jp/guide/budget/2019/19juten-sesakushu/032_3012.pdf
- Good Practices for Reducing Microplastics https://www.env.go.jp/en/water/marine_litter/gp_frmp.html
- Clean Ocean Material Alliance https://cloma.net/english/
- CounterMEASURE https://countermeasure.asia/
- G20 Report on Actions against Marine Plastic Litter https://www.env.go.jp/press/files/en/938.pdf
- Introduction of Fee-incurring Plastic Checkout Bags Starts in July 2020 in All Stores across Japan https://www.meti.go.jp/english/press/2019/1227_007.html

Nepal

- www.mofe.gov.np
- www.doenv.gov.np
- www.dokorecyclers.com
- www.khaalisisi.com
- www.ilammun.gov.np
- www.tilottamamun.gov.np
- www.bbsm.com.np

Peru

- Ley de Gestión Integral de Residuos Sólidos, Decreto Legislativo 1278: https://busquedas.elperuano.pe/normaslegales/decreto-legislativo-que-modifica-el-decreto-legislativo-n-1-decreto-legislativo-n-1501-1866220-2/
- Reglamento de la Ley de Gestión Integral de Residuos Sólidos: https://busquedas.elperuano.pe/normaslegales/aprueban-reglamento-del-decreto-legislativo-n-1278-decreto-decreto-supremo-n-014-2017-minam-1599663-10/
- Ley N° 30884, https://busquedas.elperuano.pe/normaslegales/ley-que-regula-el-plastico-de-un-solo-uso-y-los-recipientes-ley-n-30884-1724734-1/

Republic of Korea

- Framework act on resources circulation
- The 1st National Resource Circulation Plan (2018-2027)
- The 3rd national action plan on rivers and estuaries (2021-2025)
- Marine litter and contaminated sediment Management Act
- The 1st National Action Plan on marine litter and marine contaminated sediment (2021~2030)
- Environment education promotion act
- Marine Environment Information Portal (www.meis.go.kr)
- MOF website (http://www.mof.go.kr/)
- Policies > Sectoral Policies > Marine Policy > Key Components of the 1st Framework on Marine Debris

Samoa

- www.sprep.org
- www.mnre.gov.ws

Singapore

- Singapore's Zero Waste Masterplan: https://towardszerowaste.sg/zero-waste-masterplan/
- Singapore Green Plan 2030: https://greenplan.gov.sg/

Spain

- https://www.miteco.gob.es/es/costas/temas/proteccion-medio-marino/basuras-marinas/default.aspx

Sri Lanka

- Published reports:
  - National Policy on Waste Management
  - National Action Plan on Plastic Waste Management (2021 -2030)
  - Micro Plastics
- As per the UN Report

  The Sri Lanka authorities describe the MV X-Press Pearl as the “worst catastrophe in its maritime history” 1. It is evident that this is a complex and multi-dimensional incident encompassing a spectrum of environmental issues with potentially serious consequences over both the short and longer term. The key risks arise from:
  - Bunker fuel oil spill (348 tonnes);
  - Hazardous and noxious substances (of the vessels 1,486 containers, 81 were carrying dangerous goods including 25 tonnes of nitric acid, caustic sodic, methanol. In addition, there was 9,700 tonnes of potentially toxic epoxy resins on board 2);
  - Recovery and decommissioning of the shipwreck wreck and lost containers;
  - Microplastics (nurdles or plastic pellets < 5mm). In total, there were 87 containers carrying several types of plastic pellets aboard the ship. The overall quantity of plastic pellets is estimated at around 1,680 tonnes;
  - Macro plastics (5-50 mm);
  - Fire residues (micro to macro);
  - Assorted bulk debris (cargo, pieces of damaged containers);

Thailand

- Department of Marine and Coastal Resources website
  https://www.dmcr.go.th
- Pollution Control Department
  https://pcd.go.th

UK

- 25 Year Environment Plan
  https://www.gov.uk/government/publications/25-year-environment-plan
- Resources and Waste Strategy for England
  https://www.gov.uk/government/publications/resources-and-waste-strategy-for-england
- UK Marine Strategy
  https://www.gov.uk/government/publications/marine-strategy-part-one-uk-updated-assessment-and-good-environmental-status
- UK G7 Presidency Communique and OECD Ghost Gear Report
  https://www.gov.uk/government/publications/g7-climate-and-environment-ministers-meeting-may-2021-communique
- OSPAR: Regional Action Plan on Marine Litter
  https://www.ospar.org/work-areas/eiha/marine-litter/regional-action-plan

US

- 2018-2019 Interagency Marine Debris Coordinating Committee Biennial Report to the US Congress:
  https://marinedebris.noaa.gov/sites/default/files/2018-2019_IMDCC_Biennial_Report_to_Congress.pdf
- National Parks Service Ocean Plastics:
  https://www.nps.gov/subjects/oceans/ocean-plastics.htm
- U.S. Agency for International Development Save Our Seas Initiative:
  https://www.usaid.gov/save-our-seas
- U.S. Agency for International Development Ocean Plastics:
  https://urban-links.org/issue/ocean-plastic-pollution/
- U.S. Agency for International Development program Clean Cities Blue Ocean:
  https://urban-links.org/project/ccbo/
- U.S. Agency for International Development Municipal Waste Recycling Program:
  https://urban-links.org/project/municipal-waste-recycling-program-mwrp/
- U.S. EPA SMM Facts and Figures Report:
  https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/advancing-sustainable-materials-management-0
- U.S. EPA The Framework for Advancing the U.S. Recycling System:
  https://www.epa.gov/sites/production/files/2019-11/documents/national_framework.pdf
- NOAA’s Marine Debris Program:
  https://marinedebris.noaa.gov/

EU

- A European Strategy for Plastics in a Circular Economy:
  https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1516265440535&uri=COM:2018:28:FIN
- Directive on the reduction of the impact of certain plastic products on the environment (SUP Directive):
  https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L0904&from=EN
- International Ocean Governance: an agenda for the future of our oceans
  https://ec.europa.eu/maritimeaffairs/policy/ocean-governance_en
- Directive on port reception facilities:
  https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1570190453030&uri=CELEX:32019L0883
- Marine Strategy Framework Directive:
  https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm
- Good Environmental Status – Marine Litter:
  https://ec.europa.eu/environment/marine/good-environmental-status/descriptor-10/index_en.htm

- Revision of the Waste Legislation: https://ec.europa.eu/environment/waste/target_review.htm
- EU threshold value for macro litter on coastlines https://mcc.jrc.ec.europa.eu/main/dev.py?N=41&O=454
- Commission Implementing Decision (EU) 2021/958 of 31 May 2021 laying down the format for reporting data and information on fishing gear placed on the market and waste fishing gear collected in Member States and the format for the quality check report in accordance with Articles 13(1)(d) and 13(2) of Directive (EU) 2019/904 of the European Parliament and of the Council https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2021.211.01.0051.01.ENG&toc=OJ%3AL%3A2021%3A211%3ATOC
- Commission Implementing Regulation (EU) 2022/92 of 21 January 2022 laying down rules for the application of Directive (EU) 2019/883 of the European Parliament and of the Council as regards monitoring data methodologies and the format for reporting passively fished waste: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022R0092

International Organisations and NGOs

ADB

- https://www.adb.org/projects/documents/reg-53068-001-tar
- https://events.development.asia/learning-events/adb-data-room-circular-economy
- https://events.development.asia/learning-events/healthy-oceans-tech-and-finance-forum-innovative-solutions-asia-and-pacific
- https://www.adb.org/what-we-do/themes/environment/main
- https://www.adb.org/publications/adb-ocean-finance-framework
- https://events.development.asia/learning-events/blue-finance-training-designing-and-financing-bankable-projects-transitioning-blue
- https://development.asia/insight/using-metrics-support-co-investment-ocean-plastics-and-climate-change-mitigation
- https://www.adb.org/news/features/circular-economy-sustainable-plastic-future

ERIA

- Regional Knowledge Centre for Marine Plastic Debris (RKC-MPD) https://rkcmpd-eria.org/
- Private Sector Initiatives to Reduce Plastic Waste and Marine Plastic Debris https://rkcmpd-eria.org/story
- Fighting plastic waste: Voluntary initiatives no longer enough https://www.thejakartapost.com/opinion/2021/11/16/fighting-plastic-waste-voluntary-initiatives-no-longer-enough.html
- Applying the extended producer responsibility towards plastic waste in Asian developing countries for reducing marine plastic debris https://doi.org/10.1177/0734242X211013412
- Environmental and Sustainability Challenges in the Mekong Subregion https://rkcmpd-eria.org/publication/20
- Strengthening Waste Management Policies to Mitigate the COVID-19 Pandemic https://www.eria.org/publications/strengthening-waste-management-policies-to-mitigate-the-covid-19-pandemic/
- Marine Lives Matter https://theaseanpost.com/article/marine-lives-matter
- Marine lives matter: Plastic bag ban and further actions to reduce marine plastics https://www.manilatimes.net/2020/08/11/opinion/analysis/marine-lives-matter-plastic-bag-ban-and-further-actions-to-reduce-marine-plastics/753634
- Sea change: Japanese leads on marine plastic litter https://www.eastasiaforum.org/2019/10/26/sea-change-japanese-leads-on-marine-plastic-litter/

- Tackling marine plastic pollution together https://www.thejakartapost.com/news/2019/08/01/tackling-marine-plastic-pollution-together.html
- Plastic Recycling: Policies and Good Practices in Asia https://rkcmpd-eria.org/publicationsdetails.php?pid=15

IAEA

- https://www.iaea.org/services/key-programmes/nutec-plastics
- nuclear-technology-for-controlling-plastic-pollution.pdf (iaea.org)
- https://www.iaea.org/sites/default/files/21/08/nutec_rt_asiapacific.pdf

UNDP

- Plastics and Circular Economy: Community Solutions https://www.sgp.undp.org//innovation-library/item/download/1784_1c10cd6fb14cdb59312acd3dec6a80ab.html
- Global Partnership on Marine Li https://sgp.undp.org//innovation-library/item/download/1089_7716db6e9b8d71e35ff11083dcbe2d47.html
- Welcome to The GEF Small Grants Programme https://www.sgp.undp.org/

UNIDO

UNIDO is implementing projects with funding support from the Government of Japan under the MARINE initiative to support G20 Osaka Blue Ocean Vision, which aims to reduce additional pollution to zero by 2050.

- Africa regional project "Study on available sustainable alternative materials to plastics, and innovative packaging and recycling technologies that meet market needs in Africa to reduce plastics leakages to the environment": https://open.unido.org/projects/M2/projects/190137 (Egypt, Kenya, and Nigeria)
- South Africa "Support for transitioning from conventional plastics to more environmentally sustainable alternatives": https://open.unido.org/projects/ZA/projects/190110
- Egypt "Supporting the promotion of circular economy practices on single-use plastic value chain": https://open.unido.org/projects/EG/projects/190152
  Nigeria "Promoting sustainable plastic value chains through circular economy practices": https://open.unido.org/projects/NG/projects/210184

Other plastic and circular economy projects funded by EU, GEF, Canada, and Norway

- Ghana, "Establishing a circular economy framework for the plastics sector in Ghana": https://open.unido.org/projects/GH/projects/190244
- Ghana: "Ghana Circular Economy Centre": https://open.unido.org/projects/GH/projects/210154
- Bangladesh "Integrated approach towards sustainable plastics use and (marine) litter prevention in Bangladesh": https://open.unido.org/projects/BD/projects/190230
- Global: "Switch to circular economy value chains": https://open.unido.org/projects/M0/projects/190161

UNIDO publication: "Addressing the challenge of Marine Plastic Litter using Circular Economy methods" https://www.unido.org/sites/default/files/files/2019-06/UNIDO_Addressing_the_challenge_of_Marine_Plastic_Litter_Using_Circular_Economy_0.pdf

WEF GPAP

Global resources

- GPAP website https://globalplasticaction.org/
- GPAP Annual Impact Report 2020 https://globalplasticaction.org/wp-content/uploads/GPAP-Annual-Impact-Report.pdf
- GPAP Annual Impact Report 2021 https://globalplasticaction.org/wp-content/uploads/GPAP-Impact-Report-2021.pdf
- GPAP Annual Impact Report 2022 (to be published in September)
- Guide to Ensure Gender-Responsive Action in Eliminating Plastic Pollution https://globalplasticaction.org/wp-content/uploads/GPAP-Global-Gender-Guidance-May-2021.pdf
- Global Plastic Innovation Network (in collaboration with UpLink) https://uplink.weforum.org/uplink/s/
- GPAP Global Plastic Champions community https://www.weforum.org/agenda/2021/01/young-people-turning-the-tide-on-plastic-pollution/
- GPAP Finance Policy Toolkit https://globalplasticaction.org/wp-content/uploads/GPAP_Finance_Policy_Toolkit-2022.pdf

Indonesia: National Plastic Action Partnership

- NPAP Indonesia website
  https://globalplasticaction.org/countries/indonesia/
- NPAP Indonesia Action Roadmap
  https://globalplasticaction.org/wp-content/uploads/NPAP-Indonesia-Multistakeholder-Action-Plan_April-2020.pdf
- NPAP Indonesia Financing Roadmap
  https://globalplasticaction.org/wp-content/uploads/NPAP-Indonesia-Financing-Roadmap.pdf
- NPAP Indonesia Innovation Roadmap
  https://globalplasticaction.org/wp-content/uploads/NPAP_InnovationTF_Roadmap_VF.pdf
- NPAP Behavioral Change Roadmap
  https://globalplasticaction.org/wp-content/uploads/NPAP-Behaviour-Change-Roadmap.pdf
- NPAP Indonesia Metrics Roadmap
  https://globalplasticaction.org/wp-content/uploads/NPAP-Indonesia-Metrics-Roadmap.pdf

NPAP Ghana

- Gender Analysis of the Plastics and Plastic Waste Sectors in Ghana (Baseline analysis report)
  https://globalplasticaction.org/wp-content/uploads/NPAP-Ghana-Gender-Baseline-May-2021.pdf
- An Intersectional Gender Equality Strategy for the Ghana National Plastic Action Partnership
  https://globalplasticaction.org/wp-content/uploads/NPAP-Ghana-Intersectional-Gender-Equality-Strategy.pdf

The "G20 Report on Actions against Marine Plastic Litter" can be downloaded at the G20 MPL portal site (https://g20mpl.org/archives/1205).